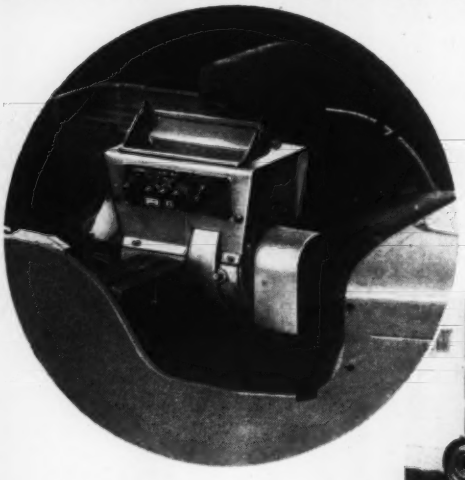
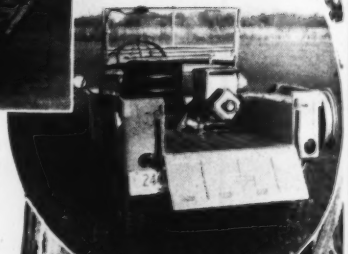
ENGINEERING NEWS-RECORD

Mile-long spillway at Fort Peck Dam goes into operation for the first time.

Now THE VERSATILE JEEP CARRIES KILOWATTS *anywhere, anytime for:*

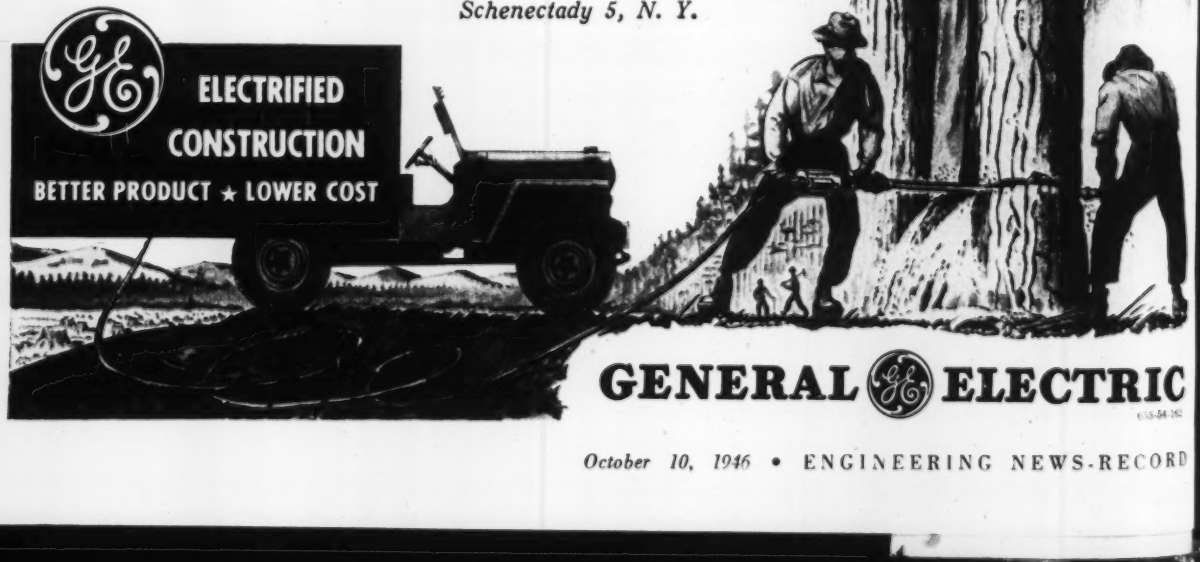
★WELDING
★LIGHTING
★POWERING drills, saws, hammers, and other electric tools





Welding generators (left, center) are available up to 300 amps at 32 volts. Power generators (right) come in 1-, 3-, and 15-kw ratings. Jeep can be supplied with either one or both generators.

● The universal Jeep can now be equipped with G-E power-generating units for welding, for temporary lighting, or for operating electric tools on those out-of-the-way jobs, thus eliminating the necessity of bringing the job to the shop. This unique combination of Jeep and G-E power unit, greatly extends electrified construction with portable tools. Power can now be made available far from power lines, in remote spots inaccessible to vehicles lacking the Jeep's strength, stability, and four-wheel drive. The electrified Jeep is ideal for patrol, maintenance, repair, and light construction jobs which take you up hills, across streams, and over rough terrain—such jobs as pipelines, telephone and power lines, drilling, lumber camp work, mining, oil field and building construction, and numerous other heretofore difficult tasks. Why not consult your equipment supplier now, and find out how the electrified Jeep can serve your field of construction activity? *Apparatus Department, General Electric Co., Schenectady 5, N. Y.*



GENERAL ELECTRIC

News of the Week

ENGINEERING NEWS-RECORD • OCTOBER 10, 1946 • VOLUME 137 • NUMBER 15

Building officials organize to promote national code

Delegates at Memphis, Tenn., convention adopt by-laws for group to work out model national building rules to eliminate current outmoded, cumbersome codes

A national non-profit agency, charged with the promotion of a model national building code, was approved last week by delegates to the 31st annual convention of the Building Officials Conference of America at Memphis, Tenn.

Creation of the agency, to be known as the Building Officials Foundation, culminated more than 30 years of effort by conference members for unification and modernization of existing codes characterized by conference members as cumbersome, outdated and obstructive.

Municipal building executives and leaders in the industry will constitute the board of governors of the new foundation, which will be financed by an endowment of $600,000 to be subscribed by manufacturers and other interests. Temporary headquarters have already been set up at 18 East 48th St., in New York City.

Bernard A. Savage, commissioner of the Board of Standards and Appeals of New York City was named chairman of the foundation.

The Building Officials Conference already has a staff headed by Albert H. Baum, building commissioner of St. Louis, Mo., with George E. Strehan, New York consulting engineer, as correlator, at work on preparing the uniform code which will be the heart of the new group's activities. It is expected that within a few months the 19 chapters that will comprise this basic code will be ready for final approval by the conference as a whole.

Another facet of the duties of the new foundation will be the direction of authoritative tests and research on new products and equipment, and distribution of the results of these tests to members (*ENR* April 4, vol. p. 465).

The public officials and representatives of contractors and private building organizations, and manufacturers attending the meeting, hailed the prospect of uniform, modernized regulations. Many speakers cited the difficulties of construction under the conflicting and confusing standards—varying from city to city—under which they must now work.

"Most building codes now in effect," Mr. Savage told the group, "are behind the times. Building departments are ill-equipped to make the necessary tests to establish the utility of new products and equipment. Manufacturers and producers are put to wasteful expense in establishing their products in one city after another."

Charles E. Bacon, commissioner of buildings for Indianapolis, Ind., stressed the need for reconsideration of present zoning ordinances, in the light of comparatively recent developments, such as the need for larger airports.

The conference elected James H. Mooney, chairman of the Massachusetts Board of Standards and Appeals and superintendent of Boston school construction, as president. In this post he succeeds Walker S. Lee, Rochester, N. Y., building commissioner, who has been president for the last five years.

Other officers elected included: A. H. Baum, St. Louis, and H. E. Hagood, of Birmingham, Ala., vice presidents; George Slenker, Allentown, Pa., secretary, and A. N. Rutherford, West Hartford, Conn., treasurer.

U.S. Army Photo

Houses Strategic Air Command—An unusual, five-winged administration building at Andrews Field, Camp Springs, Md., is headquarters for the Army Air Forces' Strategic Air Command. Wings are 170 ft. long, centering on a semicircular structure, 170 ft. in diameter. The three-story structure has a reinforced concrete frame and cast-in-place concrete outside walls, with most interior partitions of plastered cinder-block. Total floor space available is 215,000 sq. ft. Control offices and lavatories are located in the central structure. The Washington, D. C., district office, Corps of Engineers, supervised work, on which Ballinger Co., Philadelphia, Pa., was architect-engineer and Harwood-Nebel Co., Washington, the contractor.

NEWS IN BRIEF

In telegraphic form, here are latest news developments on the engineering and construction front during the week.

Construction—The University of Alabama at *Tuscaloosa* has awarded contracts of more than $1,500,000 for the construction of six domitories. . . . At *Portland, Ore.*, Pacific Telephone and Telegraph Co. has commissioned architects for two buildings, to cost $300,000 each, and the Bank of California is to erect a building to cost more than $1,000,000. . . . Projects announced at *Seattle, Wash.*, include a $325,000 school administration and service building and a $499,500 county welfare building. . . . Plans have been announced for a $5,000,000, 600-home residential project at *Eugene, Ore.*, and a $600,000, 50-home development at *Portland*. . . . Tentative plans are under consideration for a new $14,000,000 airport on a 4,000-acre tract near *Houston, Tex.* . . . A $500,000 sewer pipe plant is planned for *Mineral Wells, Tex.* . . . Turner Construction Co. has been awarded the general contract for an administration building for the Pan-American Union at *Washington, D. C.*, to cost $1,000,000. . . . United Engineers and Constructors, Inc., Philadelphia, Pa., are the architects and engineers for a $15,000,000 power station plant at *Sparrow's Point, Md.*, for the Bethlehem Steel Co. . . . The United Lutheran Church will build a $1,500,000 publication and office building at *Philadelphia, Pa.* . . . About $3,000,000 will be spent for a new plant for the American Envelope Co. at *West Carrolton, Ohio.*

Highways—The program of the *Ohio* highway department for the next few years will be confined mainly to widening and improvement of the existing 18,000 miles of roads, Director Perry T. Ford says. . . . The 3-year *Oregon* highway program has fallen about 25 percent behind schedule, according to R. H. Baldock, state highway engineer—due to the government ban on steel for highway bridges, and high material and labor costs. . . . The Province of *Quebec* has spent $20,000,000 on road building and repair this year.

New face brick standards issued by the ASTM

Committee C-15 on manufactured masonry units of the American Society for Testing Materials, has announced the issuance of new tentative specifications for two grades of face brick and numerous revisions in its other specifications and tests.

A new Tentative C 212 meets the need for requirements for facing brick since the recent trend has been to differentiate clearly between common and facing brick. Two grades are covered, for use where there is frost action and disintegration by weathering, or where there is no such deteriorating influence. The requirements cover compressive strength which for the two grades must not be less than 2,500 and 3,000 psi. respectively, and there are requirements on extent of chippage, appearance, size and warpage.

John Fritz medal awarded to Lewis W. Chubb

The John Fritz Medal, which for over 40 years has been given annually by the American Society of Civil Engineers, the American Institute of Mining and Metallurgical Engineers, the American Society of Mechanical Engineers, and the American Institute of Electrical Engineers, is to be awarded this year to Lewis Warrington Chubb, director of the Westinghouse Research Laboratories. The latest recipient of the award in the civil engineering field was John L. Savage.

The John Fritz Medal and Certificate, considered the highest award in engineering, is to be awarded to Mr. Chubb "for pioneering genius and notable achievements during a long career devoted to the scientific advancement of the production and utilization of electrical energy."

Bond issues—*Vancouver, Wash.*, will vote Nov. 5 on a $600,000 issue to provide matching funds for school construction. . . . *DeKalb County, Ga.*, will vote Oct. 29 on its second bond issue this year, the new issue to be divided into two sections, $1,250,000 to cover school improvements in the county area outside Atlanta and Decatur, and $1,350,000 for expansion and improvements in the entire county. This will include $1,000,000 for construction and expansion of the county sanitary sewerage system. . . . Voters at *Muskogee, Okla.*, have approved a $1,465,000 bond issue for improvement of water works and sewerage. . . . *Seattle, Wash.*, will vote Nov. 5 on a $3,000,000 bond issue to finance construction of an administration building and completion of other facilities at the Seattle-Tacoma Airport. . . . *Durham, N. C.*, is planning a referendum on a proposed $12,564,580 bond issue to meet current needs for improvements of its public works. It is seeking $2,425,000 for street construction and building of concrete bridges. The water and sewer department has asked $5,440,000. . . . Four bond issues totaling $2,558,000, will be submitted to voters in *Trumbull County*, Ohio, on Nov. 5, including *Warren's* proposal for $1,950,000 for storm sewers; *Howland Township's* $500,000 for a new high school. . . . A $1,550,000 bond issue for construction and expansion of streets, sewers, water system and recreational facilities for *Pensacola, Fla.*, will be placed before the voters soon. . . . *Tulsa County, Okla.*, will call a special bond election for funds for a county hospital and for the Jenks bridge across the Arkansas River. . . . Voters of *McLean County, Ill.*, will decide, Nov. 5, on a $1,800,000 bond issue to blacktop 205 mile of main county roads.

Sewerage and water supply—The *Salem, Ore.*, water commission has retained engineers to study existing and proposed water system improvements, expected to cost about $500,000. . . . Three federal advances totaling $126,800 to finance the preparation of plans and specifications for a sewerage construction program in *Baltimore County, Md.*, estimated to cost $3,119,910, have been approved by Maj. Gen. Philip B. Fleming, Federal Works Administrator. . . . *Olympia, Wash.*, has called new bids for construction of a water supply system for which it rejected a lone bid of $1,574,151 at the first opening. New bids will be opened Oct. 29. . . . *Abbeville, S. C.*, will spend $350,000 to extend its waterworks system. . . . Engineers are preparing plans to extend the sanitary sewer system at *Winter Park, Fla.* . . . FWA has advanced funds for plans for a sanitary system at *Jamestown, Tenn.*

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Inter-American sanitary group formed at Caracas meeting

Representatives of 14 countries, including the U. S., convene to discuss large scale sanitation problems

A new force in the promotion of sanitation throughout the western hemisphere was set into motion on Oct. 2 when delegates from South, Central, and North America voted the establishment of the Inter-American Association of Sanitary Engineering.

The meeting, which was held in Caracas, Venezuela Sept. 26-Oct. 2, for representatives from 14 countries, included also delegates from other South American nations who had met previously at a conference held in Rio de Janeiro last June.

Some 160 delegates were registered at the conference, which was held in the Caracas Engineering Societies building, under the joint sponsorship of the Venezuelan Ministry of Sanitation and Social Assistance, the Institute of Inter-American Affairs, and the Pan-American Sanitary Bureau. President of the conference was Luis Wannoni, chief engineer of the ministry's division of sanitary engineering.

The importance of the conference was dramatized by the presence of Romulo Betancourt, president of the revolutionary board that is governing Venezuela until elections are held this month. Mr. Betancourt not only opened the technical program but stayed throughout the initial sessions. He heard Edmundo Fernandez, Minister of Sanitation and Social Assistance, tell the delegates of Venezuela's special need for a rural sanitation program, which is indicated by parasitic infection surveys showing that in some areas 95% of the people are suffering from energy-sapping diseases. The solution to the problem lies in provisions for better water supplies, privy construction and rudimentary sanitation facilities.

Abel Wolman, professor of sanitary engineering at the John's Hopkins University, Baltimore, and Clarence I. Sterling, Jr., chief engineer and assistant director of the division of health and sanitation of the Institute of Inter-American Affairs, spoke on the challenging opportunities for sanitary engineers to improve environmental conditions.

Speakers at the technical sessions used Spanish and English, but all papers in English were translated and distributed at the time of presentation. Among the United States engineers who participated in the program were: Donald L. Shaw, Pan American Sanitary Bureau; Lawrence M. Fisher, director of sanitary engineering, U. S. Public Health Service; Thomas P. Browne, Permutit Co., New York; A. E. Griffin, Wallace & Tiernan Co., Newark, N. J.; Henry Retter, Pan American Sanitary Bureau; C. T. Butterfield, U. S. Public Health Service; Ernest Boyce, professor of sanitary engineering, University of Michigan; L. F. Warrick, chief engineer, Wisconsin State Board of Health; Robert K. Horton, Institute of InterAmerican Affairs; E. H. Magoon, Rockefeller Foundation, and Edward J. Cleary, executive editor, *Engineering News-Record.*

Caracas water supply visited

Two all-day inspection trips were taken by the delegates. One of these provided an opportunity to see the operations of the Groves-Drake Construction Co. of New York, and those of the Lock Joint Pipe Co. of Ampere, N. J. on the new water supply for Caracas (see ENR Feb. 21, 1946, p. 297). The other trip was a visit to the federal government malaria control laboratories and school at Maracay. Here the delegates learned how Venezuela was conducting a $2,700,000 yearly program of education and control measures to reduce the incidence of about one million cases of malaria annually among its 4,000,000 inhabitants.

U. S. displays

At the conference there were exhibits of equipment and literature from some two dozen United States manufacturers, which captured a great deal of attention.

However, this exhibit created a situation akin to putting candy before a child and telling him that he could not eat it, according to some Latin American engineers. The difficulty of obtaining equipment from the States was emphasized by many, who pointed out that despite their preference for U. S. manufactured products they had no alternative but to buy elsewhere because no deliveries could be made. For example, the Caracas water department has just purchased urgently needed cast iron pipe from Belgium with a delivery date of 120 days. Other European countries, it was said, are also offering prompt delivery on certain types of equipment.

Details of new association

Formation of the Inter-American Association of Sanitary Engineering represents the culmination of discussions among North and South American engineers for at least seven years. The aim has been to provide a means for closer relations among those engineers who have a common interest in the betterment of sanitary, economic and social conditions in their countries.

Great impetus to the formation of the association resulted from the wartime activities of the Institute of Inter-Ameri-

(*Continued on page* 6)

***Among those present at Caracas**—Aiding in the formation of the Inter-American Association of Sanitary Engineering at Caracas, Venezuela, on Oct. 2, were (left to right) Abel Wolman, The Johns Hopkins University; Clarence I. Sterling, Jr., chief engineer of the Institute of Inter-American Affairs; and Luis Wannoni, chief engineer of the division of Sanitary Engineering, Venezuela Ministry of Sanitation and Social Assistance.*

DEVELOPMENTS BEYOND U. S. BORDERS

Digested from reports by Engineering News-Record correspondents and the McGraw-Hill World News Bureau

Switzerland plans large-scale exploitation of hydro-electric power resources—British begin using American-type rails—Mexico to build shipyards—Panama gets loan for highways

Switzerland — Facing a growing power shortage directly attributed to industrial expansion and fuel scarcity during the war, Switzerland is now mapping a large-scale exploitation of its untapped hydro-electric power resources.

Contemplating utilization of such resources with an estimated capacity of 21 billion kw.-hr. annually, Swiss government engineers are now engaged in drawing plans for the overall program —although some units are already under construction.

Design of the new plants is aimed especially at reducing the hitherto normal winter dropoff in production.

Already under construction (see accompanying map) are plants at Rossens-Hauterive and at Julier, both originally scheduled for completion in 1947. The Rossens-Hauterive plant, with a capacity of 50,000,000 kw.-hr. annually will replace old equipment; while the installation at Julier will produce 140,000,000 kw.-hr. annually. Both plants supply the nearby metropolitan areas. Additionally, several smaller plants are under construction along the Rhone headwaters near Geneva. In partial operation, although not completed, are installations at Lucendro, Rupperswil on the Aare River and at Albula.

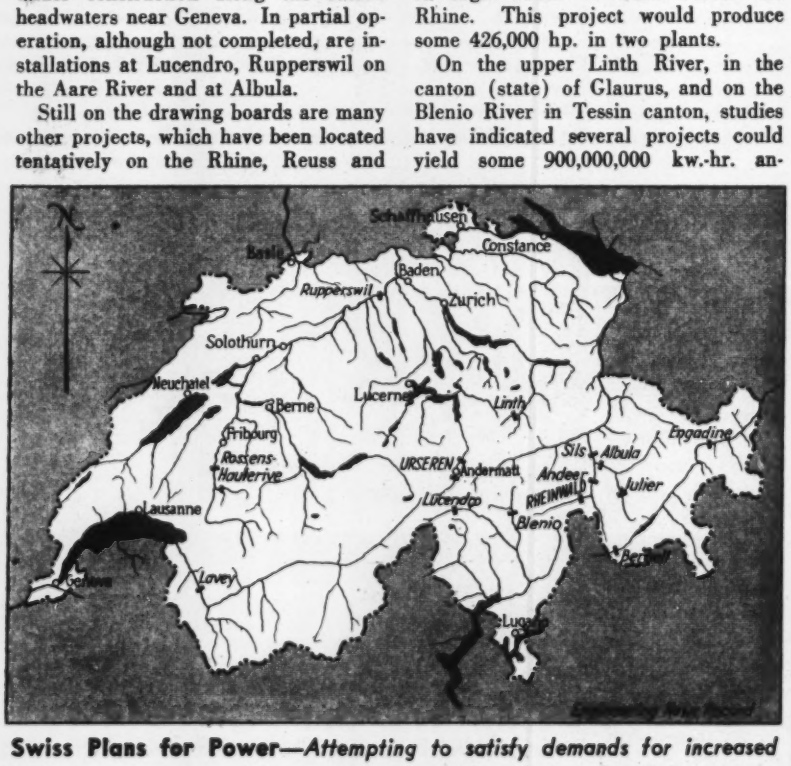
Still on the drawing boards are many other projects, which have been located tentatively on the Rhine, Reuss and Linth Rivers. Construction of some of these projects, however, is blocked for the moment by the problem of relocating village inhabitants, and by local objections to flooding valleys and sites which have been the scenes of major events of Swiss history.

Biggest of these schemes calls for construction of a 675-ft. high dam across the Reuss below the town of Andermatt (*ENR* April 25, vol. p. 676). Planned to take 19 years to complete at a total cost of $275,000,000 the project would serve five power plants with a combined output of 2.8 billion kw.-hr. annually, and add 35 percent to Swiss hydro capacity.

Other projects planned

Another major project would be located at Rheinwald, where a dam 515 ft. high would be built across the Rhine. This project would produce some 426,000 hp. in two plants.

On the upper Linth River, in the canton (state) of Glaurus, and on the Blenio River in Tessin canton, studies have indicated several projects could yield some 900,000,000 kw.-hr. annually. Other projects planned include one at Bergell and another at Engadine.



Swiss Plans for Power—*Attempting to satisfy demands for increased hydro-electric power, Swiss engineers have drawn plans for numerous new dams to utilize fully the country's swift-flowing streams.*

Transport . . . .

England—A surprising trend in railway engineering in England is an increasing, though still limited, use of American-type T-rail, in order to obtain a rail section stiffer both vertically and laterally than the English bull-head, or double-head, rail.

A recent step in this direction is the use of T-rail in frogs and switches. All the four railways which constitute the major part of the English railway system have a limited amount of T-rail in open track, using the British standard sections. The first turnouts, however, utilizing the standard 110-lb. British section, were built early in 1944 on the London and Northeastern Ry.—some of these turnouts having the rail webs vertical, and others with the inward slope of 1 in 20 as is usual in English track practice.

In August of this year the London, Midland & Scottish Ry. put in service some turnouts made with the 113-lb. T-rail, which is said to be some 60 percent stronger than the 95-lb. bull-head —the section most generally used in main track construction.

Many early English rails were of a flangeless, or footless, T-section, the web being seated in cast-iron chairs on the ties. About 1834, a section was developed having a small bulb formed along the foot of the web, for greater security of the fastening to the chairs. This was practically the initiation of the bull-head rail. The double-head section, with both heads alike, was designed for use of both heads as the running head, but this was not successful and was superseded by the bull-head rail, in which the smaller lower head provides some lateral strength and serves as an essential part of the wedge fastening in the chairs. The chair fastenings are independent of the rail fastenings.

The American T-rail was designed or invented in 1830 by Robert L. Stevens for the Camden and Amboy RR, and soon became the typical rail for American railroads, owing to its inherent advantages and the simplicity of its fastenings. Stevens also invented the splice, or fish-plate joint, and the hook-head spike for his rail.

A T-rail section designed and patented in England in 1836 by Charles

Vignoles had its web and flange much heavier thna in the Stevens rail. It was used only to a limited extent, and appears to have been supported in chairs.

Lebanon—The Lebanese parliament recently voted $48,000,000 for construction of an airdrome adequate for the largest transport planes, to be built at Khaldeh, seven and one half miles from Beyrouth.

Brazil—The office of the director general of the National Department of Railways has announced a $137,634,000 improvement program is soon to start on the Great Western, Leopoldina, Rede Mineira de Viacao, and the Viacao Ferrea do Rio Grande do Sol railways. Details of the program were not immediately made public.

Russia—Work on three water-navigation routes in Russia is proceeding rapidly, with transportation already resumed on the White Sea-Baltic Canal. The canal, which cuts water distance between the two bodies of water by some 2,500 miles, was wrecked during the Russo-Finnish campaigns.

The government also announced that work was started on construction of the 38-mile Nevinnomysk Canal in the Stavropol Territory of the North Caucasas; and on a 120-mile canal from the mouth of the Moscow River to Pererva.

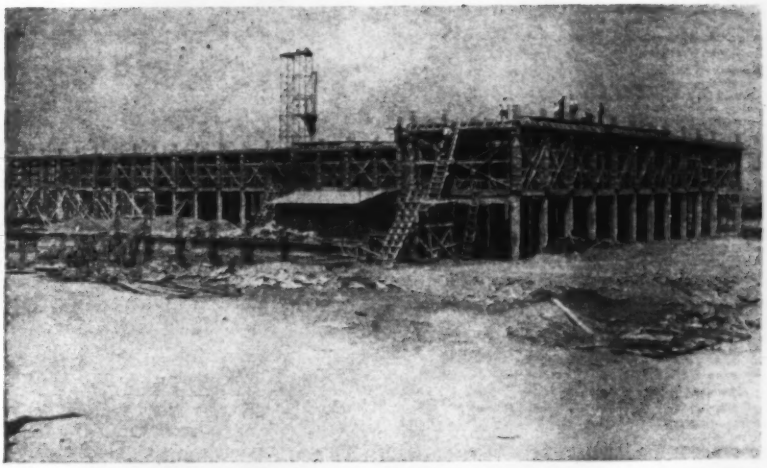
Venezuela — The federal district (Caracas) has announced that it has dropped plans for the immediate construction of a subway to alleviate traffic congestion in the business areas of the city. Only one bid was submitted at a recent opening, and district officials said prices quoted were too high.

Highways . . . .

Panama—A $25,000,000 loan to the Republic of Panama for construction of highways—especially that section of the Inter-American Highway between Rio Hato and the Costa Rican border—has been approved by the Export-Import Bank.

The major part of the money, Panamanian officials said, will be used to complete the international highway section, and the remainder will go towards construction of a system of feeder roads.

It is expected that contracts will be let for work on the roads in the near future. Survey of the highway route has been under way for several months, although there is still some question as to exact location of the southern half of the highway. Costs, if the Inter-American road section is surfaced with "black top", are set at about $20,000,000, and $27,500,000 if a concrete surfacing is utilized.



***American School for Mexico** — A $700,000 combined grade and high school is now under construction in Mexico City, D.F., for the American School Foundation of Mexico City. The new building, a two-story concrete and steel structure, is being built by Morrison-Knudsen of Mexico.*

Visitors . . . .

A special feature of the recent meeting at Fort Worth, Texas, of the American Public Works Association (*ENR* Oct. 3, vol. p. 415) was the appearance of J. W. A. Watson, city engineer of Haifa, Palestine, who described the municipal organization of his city.

The 150,000 persons in the municipality are governed by a council of ten members—five of whom are Jews and five Arabs. The city engineer is appointed by the council, but with the stipulation that he must be British.

The municipal government has some 1,200 employees, Mr. Watson said, all of whom are organized under the auspices of a single labor union. This union has been in existence for the past ten years, and relations with the city management have been "most amicable."

Mr. Watson is spending two months in the United States studying possibilities of mechanization of municipal operations, with a view toward adopting equipment used by cities of the United States for use in Haifa.

Construction . . . .

Mexico—In an effort to develop the output of coastal-trade vessels, the Mexican Navy Department has just approved a new type of contract with a private company for construction of shipyards at Tampico on the Gulf of Mexico.

The contract provides, among other things, that the Federal government place at the disposal of the company, free of charge, 8,200 square meters of land in the Tampico harbor zone on the left bank of the Panuco River.

The company, on the other hand, is pledged to build on the site provided an $800,000 naval yard by mid-July, 1947, for the construction of coastal trade vessels, up to 15,000-ton capacity, following technical instructions of the Navy Department as to type, size, capacity etc. of the vessels.

India—The H. K. Ferguson Co. of New York, N. Y., has been awarded a contract for the design, purchasing and construction of a new chlorine plant to be built at Delhi, for the Delhi Cloth and General Mills Co., Ltd.

Puerto Rico—The War Emergency Program—recently extended for one year by the insular legislature—is now going ahead with a $3,855,000 appropriation for public works. Projects under way include a hospital and public health program totalling $900,000; new schools, improvements to sewerage and water systems.

An unexpended balance of $600,000 in the fund will be used for municipal projects such as construction of cemeteries, public plazas, street paving, and other improvements.

South Africa—The first town of its kind for natives in South Africa will be built northwest of Johannesburg when town planning proposals, now before the Johannesburg City Council, are completed.

To cost more than $30,000,000 to house more than 43,000 persons, the town will cover 6,000 acres and will include a university, lower schools, several railway stations, hospitals, and a 35-acre sports stadium.

Inter-American sanitary group

(*Continued from page 3*)

can Affairs, which undertook some $60,000,000 of cooperative sanitation work in 18 of the Latin-American republics. Another important factor has been the longtime operations of the Pan American Sanitary Bureau, a voluntary organization sponsored by the governments of all the American republics.

One of the most important objectives of the association will be the establishment of standards of sanitation, a step that undoubtedly can lead to the adoption of uniform specifications for equipment and materials. Another objective—to provide for more effective interchange of scientific information—publication of a quarterly journal.

Membership is open to engineers and all others engaged in sanitation activitiees, the annual dues being the nominal sum of $3.

Association activities will be controlled by a board of directors, there being one director from each country who will be elected by the members in that country. The directors will elect a president and vice-president, and they will also have power of approval or rejection over the selection of a permanent general secretary. The latter will be proposd by the Pan American Sanitary Bureau.

Headquarters in Washington

Headquarters of the general secretary is to be in Washington, and he will probably be paid from Pan American Sanitary Bureau funds. Because funds are limited by virtue of the very small assessments that are made on the countries who support the bureau, it is possible that financial aid may come from the U. S. Public Health Service. In the past the USPHS has allotted personnel and funds to the bureau for special projects.

While the permanent organization is being formed an interim advisory committee will function. Members of this committee are: Abel Wolman, representing the Pan-American Sanitary Bureau; Clarence I. Sterling, the Institute of Inter-American Affairs; Lawrence M. Fisher, U. S. Public Health Service and Carlos S. de Santamaria, ambassador of Colombia to the United States.

The countries participating in the meeting were Colombia. Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Hondurus, Mexico, Nicaraugua, Panama, United States and Venezuela.

Engineer group at Princeton reviews educational and social trends

Conference on engineering and human affairs held as part of the university's bicentennial celebration

Practicing engineers and engineering educators gathered at Princeton University, Oct. 2-4, to consider the place of engineering in human affairs as part of the university's bicentennial program. Most of the discussion centered on educational trends.

A. A. Potter, dean of engineering at Purdue University, listed stimulation of creative talent and inculcation of human values as factors that should receive special attention in engineering education in the future. The only defense against atomic bombs, said Dean Potter, "is the preponderance of decent people who have no desire to destroy others and who have the vision, wisdom and knowledge to turn new scientific knowledge into devices to serve rather than destroy humanity."

Karl T. Compton, president of Massachusetts Institute of Technology, emphasized the need for a complete review of engineering education in the light of experience gained during the war years. Both he and dean Potter sees a growing need for graduate study to equip men for research in new fields of engineering.

Different types of training

Along the same line of thinking, H. P. Hammond, dean of the engineering school at Pennsylvania State College, expressed the opinion that the engineering schools should provide a different type of training in the latter undergraduate years for men who expect to take up post-graduate study. Similarly, he would have the schools give one type of training to men who expect to go into the operating side of industry and another to those whose chief interest is design.

Robert E. Wilson, chairman of the board, Standard Oil Company of Indiana, pointed to the continuing need in industry for a high grade of research which demands specially trained men. Too much engineering design, he said, still is on an empirical basis.

Engineers in public life

Some of the reasons why engineers do not take as active a part in local and national affairs were reviewed by Ernest E. Howard, consulting engineer, Kansas City. Mr. Howard believes that constant emphasis on the engineer's apparent lack of interest in broad, national issues is having the desired effect. As an example, he cited the recent reports on demilitarization of German and Japanese industry, issued by the National Engineer Committee, and the work of the Engineers Joint Council.

Mr. Howard observed that engineers as a group have made quite notable contribution to the public welfare through standards developed by such organizations as the American Society for Testing Materials and the American Railway Engineering Association.

Bids called Oct. 18 on big Penna. road job

Bids will be received Oct. 18 by the Pennsylvania Department of Highways for one of its largest road projects—the improvement of 7.13 miles of U. S. Route 22 in Huntingdon County.

Completion of the project will provide a by-pass for the William Penn Highway at Huntington and eliminate three dangerous underpasses there. Much of the proposed improvement is on new alignment which will speed up traffic on this heavily traveled highway.

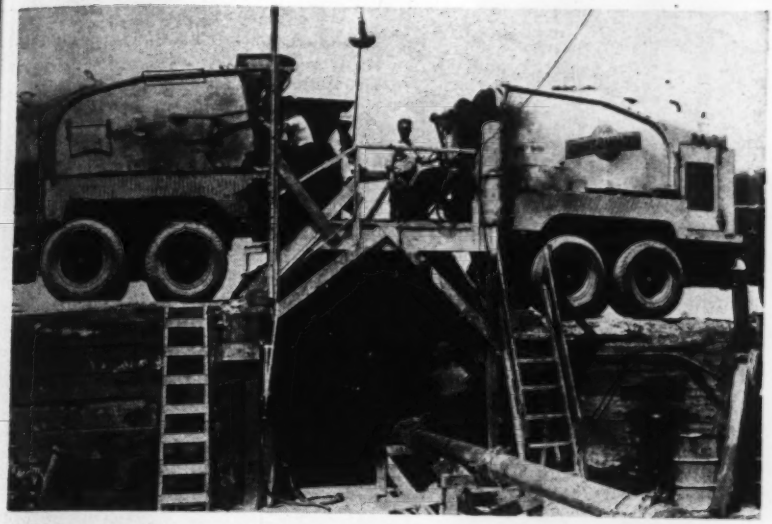
Because of the federal government's order banning the use of structural steel on the superstructure for the proposed new bridge across the Juniata River and the Pennsylvania Railroad main line tracks east of Huntingdon, the bids will be only for placing the abutments. Steel for another structure to carry the relocated highway over tracks of the Huntington and Board Top Railroad also cannot be obtained now but the department is asking bids on abutments.

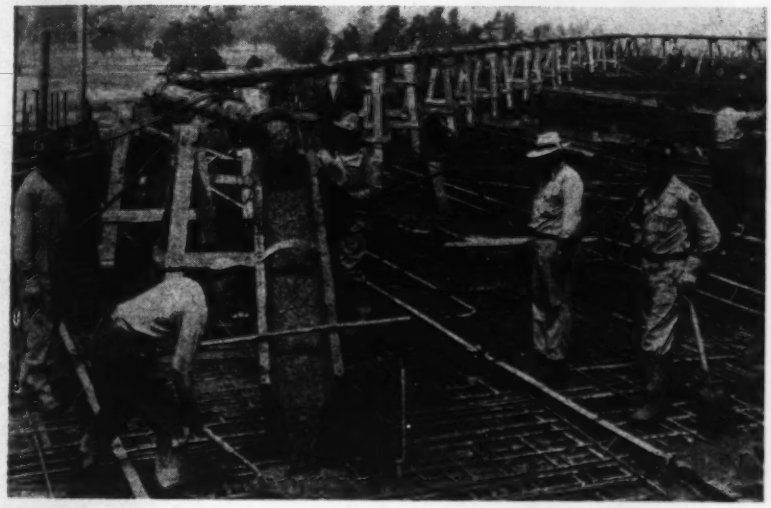
In the event an award is made, two of the low, narrow underpasses now in use can be eliminated. The third one will continue in use until the steel has been placed on the river bridge and also the one over the Huntington and Broad Top Railroad.

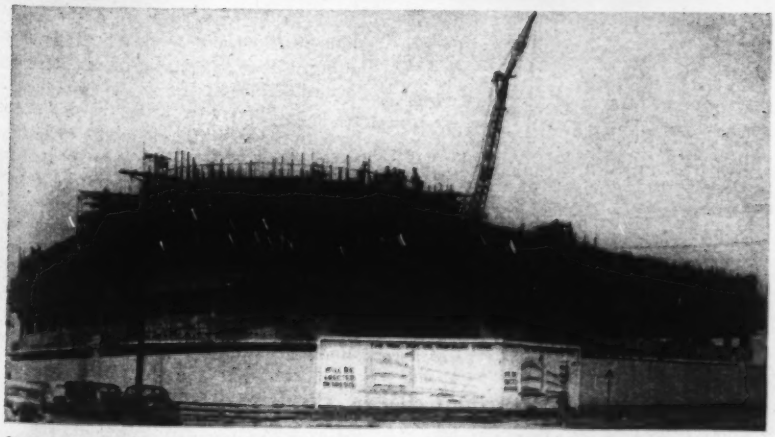
This steel could not be erected in any event until the abutments are in place, but when the federal restrictions on the use of structural steel are removed the department is prepared to proceed with bids for final completion of the project.

The entire project involves approximately 1,500,000 cu. yd. of excavation and 75,000 sq. yd. of concrete pavement.

Pump concrete for 3-story department store







Single-cylinder concrete pump forced 40 cu. yd. of concrete per hour to third floor of a concrete frame building being built for a department store branch in Los Angeles, Calif. The 8-in. dia. concrete delivery line from the pump is carried on 6-ft. high "horses". A section of spout is used for local distribution, thus entirely eliminating the usual wheeling of concrete and the clutter of concrete buggy runways.

Some 15,000 cu. yd. of concrete is being pumped for a three-story, mezzanine and full basement department store for the May Company in Los Angeles, Calif. The structure has 261,500 sq. ft. of floor space and is supported on cast-in-place concrete piles. Columns are spaced in a rectangular pattern 24x20 ft. and vary in diameter from 30 in. in the basement to 15 in. on the third floor. Reinforced concrete floor slabs are 6 in. thick but are unique in that they are supported by beams 12 in. deep and 6 to 8 ft. wide. Reinforced concrete exterior walls vary in thickness from 14 in. in the basement to 10 in. for the third floor.

Concrete for the project comes from a nearby permanent plant, delivered in transit-mix trucks that back up a short ramp and dump into a remixer set directly over a single-cylinder pumpcrete machine centrally located in the construction area. Concrete is pumped through an 8 in. diameter pipeline for distances up to 475 ft. horizontally and 40 ft. vertically but care was taken to provide 50 ft. of horizontal pipe ahead of the vertical run so that inertia of the concrete in this length could balance the back pressure from the weight of concrete in the vertical pipe.

Small crew employed

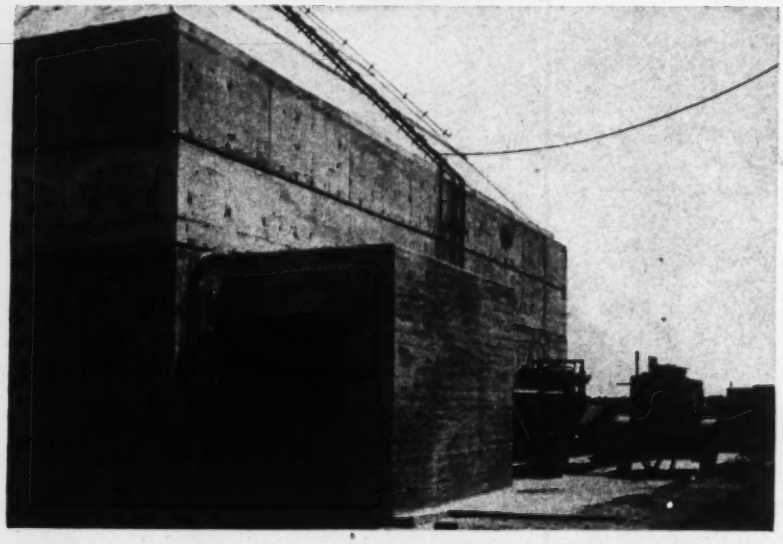
The concrete placing crew is made up of three vibrator men, one hose tender, four shovel men, two clean-up men, and three pipe tenders, thirteen in all. At the third floor level this crew placed 406 cu.yd. in a 10-hour shift.

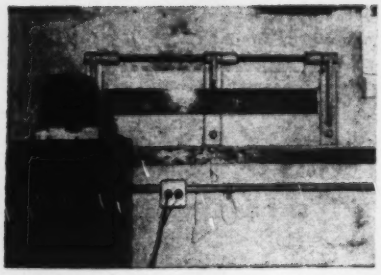
Concrete is designed to have a slump of 3 in. with a minimum 28 day strength of 3000 psi. Two mixers are used: for heavy reinforced sections thin walls and the like, 6.46 sacks of cement are used per cubic yard with 1 in. maximum size aggregate and 5¾ gal. of water per sack of cement. For other concrete 1½ in. aggregate was used with 6.0 sacks per cu.yd., also with 5¾ gal. of water. An admixture is being used to assure water tightness in slabs and walls in contact with the ground while another type is used in thin walls to increase workability.

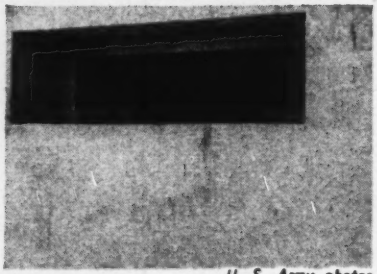
The May Company's Crenshaw store was designed by Albert C. Martin & Associates, architects and engineers of Los Angeles, with Samuel A. Marx of Chicago as associate architect. The Joshua H. Marks Company is general contractor.

Information on the May Company store is condensed from an article on "Pumpcrete Construction" by S. Perliter of Perliter & Soring.

Army builds massive blockhouse for rocket testing







U. S. Army photos

For Testing Rockets *— Control blockhouse used to protect men and equipment from blast, concussion, fire and gases that result from normal testing operations, or possibility of premature explosions or misfires. Top photo is general view of the blockhouse, while center depicts heavily protected entrance. The two bottom pictures are inside and outside views of one of the portholes provided for visual observation of the tests.*

Built to provide an enclosure for control and testing apparatus used in launching rocket projectiles, and to provide protection for personnel conducting the tests, the massive reinforced concrete blockhouse shown on this page dominates the Technical Area in the Army's huge White Sands Proving Grounds, near Alamogordo, N. M.

Located 450 ft. from the center of the launching platform, and directly facing the platform, the blockhouse is oblong in shape, and about 36 ft. in height from floor line to the apex of the roof. It is provided with a reinforced concrete baffle wall and reinforced concrete slab roof across the entrance. Two doors, both of steel and gas-proof, provide entry.

Wall thicknesses are 10 feet, and the roof is 27 ft. thick, having been placed in five lifts of four, six and seven-foot thicknesses. The floor slab is eight feet in thickness, embedded so that the top of the slab is level with the ground. The structure is reinforced with a network of ¾ in. steel bars, spaced about 24 in. on centers vertically and 12 in. horizontally and laterally throughout the thicknesses of the floor slab, walls and roof.

Inside dimensions of the control room are 20 x 40 by 9 ft.

Visual observation provided

To provide facilities for actual visual observation of the tests, powerful telescopes and periscopes are mounted in the walls of the building. In addition, glass-covered portholes, fitted with glass lenses 5 x 6 x 37 in. afford clear vision.

The structure is gas-proof throughout, with provisions made for air-conditioning, although ventilation at present —pending installation of Chemical Warfare Service equipment—is provided by one 14-in. removable exhaust fan, equipped with a gas-proof shutter; and a 12-in. metal air intake vent in and south side of the building, facing away from the launching platform.

Design was performed by the Minefield and Fortifications branch of the Research and Development Division, Office of the Chief of Engineers, and plans were adapted to local conditions by the firm of Wilson and Co., engineers of Salina, Kan., under supervision of Lt. Col. R. E. Cole, district engineer at Albuquerque. Construction was performed by Robert E. McKee, of El Paso, Texas. Project engineer was J. B. Sanders.

E. J. CLEARY . . . .

Letter From Latin America

. . . In which ENR's executive editor reports on a meeting of sanitary engineers, the effect of jeeps on good meals, and the problem of language-differences in dancing.

Caracas, Venezuela, Sept. 30—Attending conventions on two continents in the same week falls in the category of a sleepless experience.

This isn't a complaint—it just happens to be a fact. When you spend the first half of the week at Fort Worth, Tex., being alerted to the problems aired at the American Public Works Association congress and then dash away to South America to hear what is going on at the Inter-American Regional Conference of Sanitary Engineers, what can you expect?

What happened at Fort Worth was promptly recorded for publication (*ENR* Oct. 3, vol. p. 415). But unless the pace of the Caracas meeting slows down and a few cocktail parties, banquets and inspection trips are cancelled, the report of this convention is going to miss the deadline. (*Editor's Note—It arrived nevertheless. See page 3*).

Because there is little likelihood of cancellations, here are at least a few highlights of what goes on:

Fourteen-country conference

Representatives from 14 countries, guests of the Venezuelan Ministry of Sanitation and Social Assistance, are meeting from Sept. 26 to Oct. 2 to discuss means for more effective control of environmental diseases in the Western Hemisphere. Additional sponsors of the conference are the Institute of Inter-American Affairs and the Pan-American Sanitary Bureau. The Water and Sewage Works Manufacturers Association is also participating and there are about a dozen exhibits of equipment and literature.

Not the least of the many courtesies provided by the Venezuelan government are free cable message and airmail franking privileges. The mail frank is a special one designed for this occasion, and stamp hobbyists say that the envelope containing the frank will have great value for collectors. They point out that relatively few of these franked envelopes will get into circulation, and this will enhance their value.

Latin-American engineers, almost without exception, speak English—a happy circumstance for most of the delegates from the United States. As a consequence, there has been a continual exchange of ideas that begins at breakfast, carries through the all-day technical sessions, becomes more animated at the 7 p.m. cocktail hour and then reaches deadly seriousness with the 9 p.m. dinner.

"Breather"—by jeep

To provide a "breathing spell", field inspection tours were arranged over the weekend. Thus it was that your correspondent found it necessary to jump into a jeep at 6:30 a.m. in order to make a tour of aqueduct construction. It was hard and dusty going for the next twelve hours, but not one of the occupants in the 30 jeeps and command cars (no other type of vehicle could negotiate the route) was discouraged. In fact, most of them were up at 6 a.m. the next day for another long ride to Maracay, where anti-malaria control demonstrations were given for the three visitors.

Coming back to the aqueduct trip, however, mention must be made of the wonderful meals that were provided en route at two of the camps maintained by Groves-Drake, contractors, of New York. These meals, properly shaken down by jeep-action, put everyone in the best possible mood to enjoy the magnificent scenery at El. 7,000. The fact that the road for the most part was simply hewn out of the side of sheer cliffs served to sharpen appetites—at least that was the conclusion reached by "Mike" McGahn, general superintendent of Groves-Drake, who played host to the delegates along with Ed Grove, project superintendent.

(For a description of what the delegates saw, refer to "South America's Biggest Water Supply Project", *ENR* Feb. 21, vol. p. 297).

High altitude and fresh mountain air was all that the delegates needed to give them zest for the Saturday night dance at the Hotel Avila. Your correspondent, with true devotion to his reportorial duties, also covered this event. Perhaps the most newsworthy item was the almost miraculous ability suddenly displayed by members of the U. S. delegation to converse in Spanish.

No speak . . .

Without venturing an opinion as to the cause, a number of senoritas interviewed by this writer said: "No entiendo ingles".

Since it may take you a little time to figure this out, I'll close. My next letter will probably be written entirely in Spanish, if the delegates go to another dance.

Volunteers combat strike in city sewage plant

Volunteer workers, including bankers, merchants and city officials—manned sewage disposal plants at Stockton, Calif., during an AFL city employes' strike.

The some 50 volunteers answered a call for workers issued by Mayor Gay E. Crane, who decreed a state of emergency in the city, declaring that shutdown of the system would create a grave health problem.

The volunteers were promised full police protection against possible violence by strikers. However, pickets were withdrawn from the plants following the mayor's decree.

The city council has offered the strikers a 13 percent wage increase, but maintains it has no authority to grant the retroactive pay boost the civil service workers asked.

MUNICIPAL SANITATION BY ATOMIC ENERGY?

The city of the future may operate its entire sanitation system as a part of an atomic energy plant, sterilizing water supply, cleaning waste and producing new products at the same time that power is generated, members of the American Chemical Society were told at a recent symposium in Chicago.

Milton Burton, of University of Notre Dame, said that new drugs, large-scale production of vaccines, medical use of specifically absorbed radioactive dyes, and large-scale treatment of viruses to produce anti-bodies are among the many benefits to be expected from an intensified study of radiation chemistry now under way.

Canada sees no drop in building cost

Unless efficiency in building operation increases over present levels, no substantial reduction of present inflated building costs can be expected, according to a report prepared by the Canadian Reconstruction Department, Economic Research Division.

The report, a lengthy review of current conditions in the Canadian industry, assumed that the nation must build some 60,000 housing units by the end of 1947.

Reviewing his department's report, C. D. Howe, minister, said that the study makes it clear that the housing target of 60,000 units during the year 1946-47 is within the production capacity of the country. The report said that such a program would provide homes for about 200,000 persons; jobs for one year for between 134,000 and 162,000 men, and would involve the expenditure of more than $259,000.000 for payrolls and materials. In addition, real estate transactions ranging from $27,000,000 and $33,000,000 are envisaged. The official added that these figures should be raised by about 20 percent for every additional 10,000 houses built in the country during the one-year period.

Pointing out that shortages of certain building materials and lack of sufficient skilled construction workers are "great obstacles" along with high construction costs, the report blamed the rise in construction costs on the increase of prices of building materials and of hourly wage rates paid to construction workers, and on the lowering of efficiency in the house building industry, owing to special conditions arising out of the late war.

"Taking all factors into account," Mr. Howe said, "total building costs have risen between 47 and 62 percent from 1939 to 1945, and a further rise is indicated for the near future."

Builder punished for housing order violation

A Pasadena, Calif., building contractor last week was barred for four months from obtaining any construction authorization, or from applying or extending any preference ratings for materials as a result of "wilful" violation of the Civilian Production Administration's veterans' housing program order.

At the same time, CPA said it had issued a suspension order against a Miami Beach, Fla. builder halting further construction on two residences started in violation of the order.

The California contractor was charged with beginning construction on two 4-unit "motel" structures in Los Angeles without authorization, and the Miami Beach builder was charged with beginning construction of a new one-family residence at Miami Beach and two other unauthorized structures.

Let $9 million contracts for N. Y. City housing

The seventh of New York City's proposed permanent public housing projects will be put under construction this year, the New York City Housing Authority announced last week. To be known as Abraham Lincoln Houses, the development will be located on the city's upper East side and will provide housing for 1,286 low-income families in fourteen buildings.

The contract for general construction was awarded to the H. R. H. Construction Co. of New York City for its low bid of $7,296,000.

City off-street parking urged in Northwest

Legislation which would give cities the power to create municipal public utilities to operate off-street parking facilities is likely to be presented to the next session of the Washington state legislature as the result of a recent meeting in Seattle of representatives from Spokane, Seattle and Tacoma to discuss plans for solving the parking problem.

The group, headed by C. A. Crosser, executive secretary of the Seattle Municipal League, agreed to draft a law for presentation to the legislature.

Raymond P. Kelley, secretary of the Spokane Downtown Parking Association, who called the meeting, urged that parking needs of private airplane owners as well as autoists should be considered. Farmers in the Spokane area have asked him to try for establishment of a downtown air parking strip for farmers who want to fly to town to shop.

J. W. A. Bollong, Seattle traffic engineer, said he believed that every building erected should include in its building plans "a parking area commensurate with the needs of the building."

***In Use for the First Time**—Water flowed down the mile-long spillway at Fort Peck Dam in August of this year for the first time since the structure was completed in 1939, as shown on the cover of this issue. About three miles from the dam, the spillway is controlled by 16 Stoney-type gates, 25 ft. high and 40 ft. wide. The fixed crest (the bottom of the gates) is at El. 2225 and the upper pool level is El. 2250. On July 30 of last year the water rose to 1.36 ft. above the fixed crest, but none was spilled. The spillway has a capacity of 255,000 cfs., and the four outlet tunnels at the dam have a combined capacity of 84,000 cfs., making total possible discharge 339,000 cfs.—more than twice the maximum recorded flood. The reservoir has a capacity of 19,000,000 ac.-ft.*

Aluminum prefab house placed on exhibit

To be marketed under the name of "Boulevard Home" a 24x33-ft. 2-bedroom house, composed of aluminum die-formed panels, fastened by means of special H-shaped keys, was opened for public display this week at Kansas City, Mo.

Plans call for two corner bedrooms, 11 ft. 4 in. x 10 ft. and 9 ft. 8 in. x 11 ft. 10 in., respectively; a bathroom, central utility room, kitchen, corner dining area and 11-ft. 8-in. x 17-ft. 2-in. living room. In addition, an 8x12-ft. breezeway or porch and a 9-ft. 4-in. x 23-ft. 4-in. garage are available.

The factory-fabricated channel-shaped panels of 0.051-in. aluminum sheet have 4-in. flanges in which slots are precision-punched for uniformity and ease of erection. The panels are fastened by inserting H-shaped keys in the slots, turning the keys through 90 deg., and driving them against one end of the slots. The flanges are offset for installation of a kiln-dried, toxic-treated wood furring strip to prevent metal to metal contact of inside walls and to act as nailing surfaces. Wall, floor and ceiling insulation is of the batt or blanket type.

Other finishes possible

The interior surface of the outside wall does not necessarily have to be of aluminum. Similarly, one face of the interior partitions, which are also formed of these panels, may be of lath and plaster or wall board.

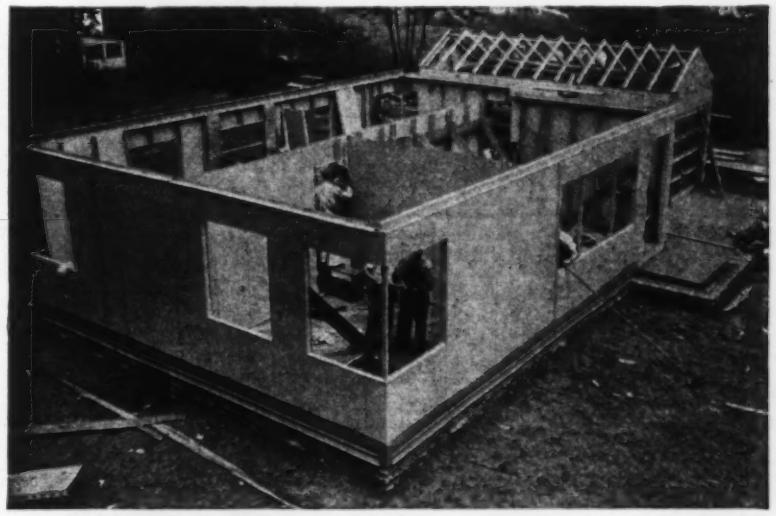
The exterior wall panels are clipped to channels at top and bottom. The base channel is anchored to the concrete foundation wall by ⅜-in. bolts and hold-down clips.

When the panels are used for the ceiling, they are placed with the smooth surface down and the flanges serve as rafters. When gable roofs are used, the panels are hung from steel rafters, which are covered with wood sheathing and either shingles or rolled roofing.

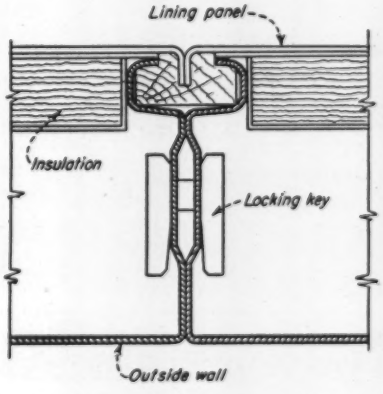
The single-hung aluminum windows are weather-stripped and snug-fitting. About 25 percent of the exterior wall area is occupied by windows. Wood doors and door frames are furnished with aluminum thresholds and hardware.

Fabricated by the Butler Manufacturing Co. of Kansas City, Mo., the panel construction has been in use for over 9 years, and during the war was used in the construction of hangars and warehouses. The Boulevard Home will be marketed at about $7,000, through contractors. The breezeway and garage will be optional.

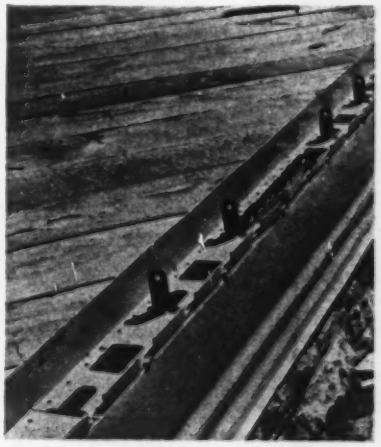
Constructed of aluminum panels, this 24x33-ft. 2-bedroom house now on exhibit in Kansas City, Mo., is being marketed through contractors for about $7,000. Garage and breezeway are optional. About 25 percent of the exterior wall area is windows.



Exterior walls are formed of 0.051 in. thick aluminum sheets, with 4-in. flanges, to which batt- or blanket-type insulation is applied. Interior lining may also be aluminum. Partitions are also constructed of the same panels. In the view above, the two corner bedrooms are at the left and center foreground, kitchen and dining area in the center background and the living room at the right.



To join the panels, patented H-shaped keys are inserted through accurately matched slots, turned 90 deg. and driven against one end of the slot. Wood batten strips at joints provide nailing surfaces.



Clips anchor wall panels to a base channel, which in turn is held in place on the concrete foundation wall by ⅜-in. bolts and hold-down clips. A similar channel runs across the top of the panels.

MEN AND JOBS

Hugh Thomas, Jr., formerly district engineer at Savannah, Ga., and **Joseph J. Hutton,** formerly district engineer at Miami, Fla., have formed the firm of Thomas & Hutton, Savannah, Ga. The firm will specialize in engineering and planning of docks, bulkheads, walls and marine structures, waterways, drainage and reclamation, also water supply and distribution, sewage treatment and collection plans, storm drainage, roads and streets.

James Luke Frink, recently retired major general, Washington, D. C., has been appointed city manager of Greensboro, N. C.

Okey Gregg, president of the Sound Construction & Engineering Co., one of the largest construction firms in the Pacific Northwest, has retired after more than 20 years with the company and now is living in Pomona, Calif.

Dean L. Condon, assistant chief of the civil works branch, Seattle District U. S. Army Engineers, has been recalled to active duty in the Corps of Engineers with the rank of major and has reported to Fort Lewis, Wash., for orders. A graduate civil engineer from Oregon State College, he saw service in the Pacific theater until his release from active duty last October.

Scott P. Hart has returned from military service to his former position of materials engineer for the Montana Highway Department at Helena.

Charles E. Peterson, released as commander, C.E.C., U.S.N.R., has returned to the National Park Service, assigned to studies for the development of the St. Louis, Mo., riverfront. Mr. Peterson served as engineering planning officer on the construction section of the Nimitz staff.

Jules P. Channing has established a consulting engineer office for the general practice of civil engineering at 1540 Washington Ave., Miami Beach, Fla.

Elmer F. Steigelman, civil engineer has moved his office to 577-14th Street, Oakland, Calif. His practice covers structural design, surveying and subdivision work.

R. Gail Baker, an authority on water engineering, has been appointed city engineer and street superintendent of Phoenix, Ariz. A graduate of the University of Arizona, he is a member of the municipal water commission backing a proposed $5,000,000 water project for Phoenix.

Donald S. Walter was recently appointed construction engineer in charge of Anderson Ranch Dam of the Boise Project in southern Idaho.

Arthur Mills, formerly division engineer at Cochrane, Ont., has been named by the Ontario Department of Highways as engineer of king's highways, and Eric Smith, district engineer at Port Arthur, Ont., named as engineer in charge of all municipal and township road construction.

Five changes among the Virginia State Highway Department's key engineers and superintendents were recently announced. **C. F. Daniel** has been promoted to district equipment superintendent at Lynchburg to succeed E. A. Johnson, resigned; **E. L. Alsop** has been promoted to assistant resident engineer at Amherst; **W. M. Jeffress** has been promoted to assistant resident engineer at Chatham; **J. R. Diamond** has been promoted to resident engineer at Accomack, and **M. B. Hoyt,** assistant resident engineer at Covington, has been transferred to South Hill.

E. C. Smith, Jr., West Virginia civil engineer, and graduate of the University of West Virginia, has been appointed special assistant to F. H. Dryden, assistant administrator in charge of the Veterans Administration construction, supply and real estate services. Mr. Smith will have much to do with planning the construction of nearly a billion dollars worth of VA hospitals.

J. W. Allen, division engineer for the Florida State Road Department for the past eight years, has resigned. His suc-

Walker R. Young (right) chief engineer and director of the Branch of Design and Construction, Bureau of Reclamation, and Carl L. Myers, engineer in charge of investigations, look over site of Yellowtail Dam, near Hardin, Mont.

Trying hard to make an easy living at a recent outing are, left to right: C. A. Betts, civil engineer, U. S. Forest Service; J. B. Blaiklock, engineer for the Capital Transit Co., and A. F. E. Horn, of General Electric Co., all of Washington, D. C.

Showing off points of interest in his 400-mile baliwick is E. G. Middleton, head of the Public Roads Administration's Roanoke, Va., office. He is in charge of construction on more than 400 miles of the 470-mile Blue Ridge Parkway.

Carlos Sanz de Santamaria (left) ambassador from Colombia and a sanitary engineer, discusses details of the Naval Ordnance Laboratory at White Oak, Md., with L. V. Minear, now of the U. S. Army Engineers at Washington, D. C.

cessor will be **Sam P. Turnbull.** Allen, who was with the department for 19 years, will become affiliated with J. W. Connor and Son, general contractors, Tampa, Fla. Turnbull has been with the department since 1926. During the war he served with the Army Engineers and left the service last year with the rank of major.

Completing a long career with the U. S. Public Health Service, **Ralph Edwin Tarbett** of the sanitary engineering division is now on terminal leave prior to retirement from the service in January, 1947. Mr. Tarbett joined the service in 1913 as one of the first sanitary engineers assigned to make studies and surveys of water pollution. During World War I, he was engaged in extra cantonment activities conducted by the service. Following the war, he was assigned to the domestic quarantine division as sanitary engineer for the administration of interstate quarantine procedures, particularly relating to safe water supplies for interstate carriers.

Recently, Mr. Tarbett has completed a detailed study of sanitation facilities in the war-devastated areas of Japan, where he served as a U. S. Public Health Service member of the medical division of the U. S. Strategic Bombing Survey sent to Japan to survey postwar health conditions.

A. H. Wieters, for many years chief sanitary engineer for the Iowa State Department of Health at Des Moines, has been named sanitary engineer for the billion dollar national hospital construction program. He will be on leave of absence from his post with the Iowa health department. Paul Houser, of Iowa City, an engineer in the state health department, will take over Mr. Wieter's position at Des Moines.

Lt. Col. Sam G. Neff of Cody, Wyo., has been appointed chief of the construction division of the Denver, Colo., district office of the Army Engineers. A graduate of the University of Wyoming, he has had a variety of assignments with the Corps of Engineers, starting with water research surveys of the Missouri River in 1928.

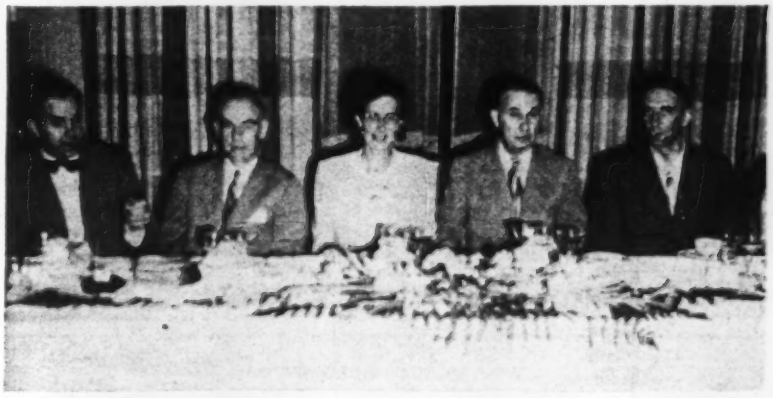
Lt. H. J. Korte, University of Minnesota graduate of 1938, who served in the Army Transportation Corps, is back again with R. E. McKee, general contractor, of El Paso, Tex.

G. E. Smith, Moncton, N. B., has been appointed right of way engineer for the Atlantic region of the Canadian National Railways. He succeeds **R. H. Emmerson,** Dorchester, N. B., who has retired. Mr. Smith joined the CNR staff at Moncton as a draftsman in the engineering department in 1919. He had been assistant regional engineer for about a year prior to his new appointment. Mr. Emmerson had been right of way engineer about three years. He started with the CNR engineering department at Moncton in 1902; and had been assistant regional engineer for 18 years.

Joseph J. Ilgenfritz, engineer with Albert W. Walker Co., engineer, Bethesda, Md., has been appointed deputy director of building inspection for the District of Columbia. After obtaining his civil engineering degree from Virginia Polytechnic Institute in 1928, Ilgenfritz started out as a construction and research engineer. In 1933 he joined the U. S. Forest Service as a field engineer. In the early part of the war he served as post control and construction officer at Fort Belvoir, Va. He has been with the Bethesda firm since his separation from the Army last May as a lieutenant colonel.

D. W. McNaugher, Jr., vice-president, has also been appointed treasurer; and S. C. Sexauer, assistant secretary, has been appointed secretary, of the Robert W. Hunt Co., engineers, Chicago, Ill.

Martin Toscan Bennett has announced the opening of an office at 917 15th Street, N.W., Washington, D. C., for the practice of general industrial engineering. Mr. Bennett has just returned from abroad where he was chief of staff of Ambassador Edwin W. Pauley's mission which surveyed industries in Japan, Korea, Manchuria, Germany and Austria. He served throughout the war as economic and technical consultant to several war agencies including War Production Board, Office of Economic Warfare, and Foreign Economic Administration.



Georg Wastlund (right) professor of structural engineering and bridge building at the Royal Technical University of Stockholm, Sweden, and a group of Swedish civil engineering students concluded a recent tour of the U. S. at a dinner in New York City. Host was K. P. Billner, president of the Vacuum Concrete Inc., Philadelphia, who is seated next to Prof. Wastlund. Others (right to left) are: Mrs. Wastlund; Harold E. Wessman, of New York University, and S. O. Astlund, Stockholm contractor.

Construction now under way on a divided-highway section of U. S. Route 1 west of Salem, Va., is under direct supervision of these three. Left to right: P. O. Bailey, assistant resident engineer for the Salem district of the Virginia Department of Highways; M. A. Howery, superintendent for the Ralph E. Mills Co., the general contractor, and C. J. Fraim, general superintendent for the Mills company.

Cost of highway work continues high

The Public Roads Administration has revealed that its composite mile index for highway construction costs for the second quarter of the year was 117.0 or slightly lower than the figure of 119.3 for the first quarter.

However, PRA officials explained that the slight drop should not be interpreted to mean that costs are declining appreciably. Instead the reduction is explained by the fact that some state highway departments are advertising work in a manner to attract more bidders, such as by breaking a big job up into several parts. It is also pointed out that many bids are being turned down as being too much above estimates.

The PRA index is based on costs for the years 1925-1929 with the figure for these years 100.0. In preparing costs on this basis it is assumed that the average mile of highway construction requires 17,491 cu. yd. of earthwork, 3,726 sq. yd. of paving, 16,000 lb. of reinforcing steel, 4,325 lb. of structural steel, and 68 cu. yd. of structural concrete. The figure of 117.0 for the second quarter is in contrast with an average of 111.7 last year, 115.5 in 1944, 126.9 for 1943, 109.9 in 1942, 81.8 for 1941, and 71.6 in 1940, which was the lowest year since 1932.

The PRA has also announced a plan to reduce the "paper" work necessary to obtain approval for highway jobs requiring no structural steel. Shortly after Director John R. Steelman of the Office of War Mobilization and Reconversion issued his Aug. 5 moratorium order severely curtailing federally-financed construction (*ENR* Aug. 15, vol. p. 199), PRA Commissioner Thomas H. MacDonald instructed his regional offices to proceed with a minimum of work. Now additional projects not already programmed may be approved for construction by PRA field offices without reference to Washington, provided no structural steel is required.

However, PRA's policy continues to be that of "limiting construction to urgently needed improvements with particular attention to safety of travel, and careful determination of the reasonableness of bid prices before approving award of a contract."

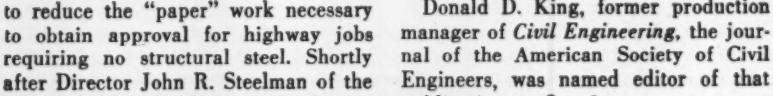
As a result, the new ruling regarding jobs not requiring structural steel is expected to result in only a few additional jobs going ahead.

Donald King named editor of "Civil Engineering"

Donald D. King, former production manager of *Civil Engineering*, the journal of the American Society of Civil Engineers, was named editor of that publication on Oct. 1.

In his new post Mr. King replaces Allen Wagner, who for the past three months held the title of editor in addition to his other post as director of public relations for the ASCE. Mr. Wagner now becomes executive editor of the publication.

Mr. King was associated with *Civil Engineering* from 1930 to 1943 in charge of art and production. During the war he served as technical editor of *Aviation Engineer Notes*, and in 1945 he joined the staff of *Construction Methods*. He left the staff early in 1946 to set up his own business under the name of King Advertising Services.



U.S. Bureau of Reclamation photo

***Site of Yellowtail dam**—About 35 miles south of Hardin, Mont., the sheer rock walls of the canyon of the Big Horn River will anchor the proposed Yellowtail Dam—a unit in the overall development of Missouri Basin water resources (the Big Horn is a tributary of the Yellowstone River). Yellowtail Dam will be part of South Central Montana's Hardin Unit, which is expected to provide a total of 332 million kwh. of power annually, and irrigation water for 45,000 acres of farmlands.*

Calendar of Meetings

NATIONAL

American Society of Civil Engineers, fall meeting, Continental Hotel, Kansas City, Mo., Oct. 16-19.

Associated General Contractors of America, Inc., fall meeting, Benjamin Franklin Hotel, Philadelphia, Pa., Oct. 21-22.

National Council of State Boards of Engineering Examiners, 25th annual meeting, Hotel Statler, St. Louis, Mo., Oct. 27-29.

American Institute of Steel Construction, annual convention, Del Coronado Hotel, Coronado, Calif., Oct. 28-31.

American Public Health Association, 74th annual meeting, Cleveland, Ohio., Nov. 11-15.

American Welding Society, annual meeting in conjunction with the National Metal Congress and Exposition, Atlantic City, N. J., Nov. 17-22.

REGIONAL

American Water Works Association, Southwest Section, Buccaneer Hotel, Galveston, Texas, Oct. 14-17.

Pennsylvania Water Works Association, Golden Anniversary meeting, Hotel Traymore, Atlantic City, N. J., Oct. 15-18.

American Water Works Association, New England Section, Parker House, Boston, Mass., Oct. 17.

American Water Works Association, West Virginia Section, Hotel Morgan, Morgantown, W. Va., Oct. 17-18.

American Water Works Association, California Section, Whitcomb Hotel and Civic Auditorium, San Francisco, Calif., Oct. 23-25.

American Water Works Association, Kentucky-Tennessee Section, Andrew Johnson Hotel, Knoxville, Tenn., Oct. 28-30.

American Water Works Association, Iowa Section, first reorganization meeting, Hotel Kirkwood, Des Moines, Iowa, Nov. 4-6.

The Associated General Contractors of America, Inc., Carolinas Branch, 26th annual convention, Sheraton Bon Air Hotel, Augusta, Ga., Nov. 10-12.

Southeastern Association of State Highway Officials, annual meeting, Tutwiler Hotel, Birmingham, Ala., Nov. 12-13.

American Water Works Association, Wisconsin Section, Northland Hotel, Green Bay, Wis., Nov. 15-17.

Guaranteed market for 19,400 homes

Housing Expediter Wilson W. Wyatt on Oct. 3 issued a directive to the Reconstruction Finance Corporation to enter into a guaranteed market contract with the Homeola Corp., Chicago, Ill., for the production of 19,400 low-priced factory-built houses for veterans. The office of the housing expediter, the RFC and the company have been in conference on the contract —which will be the first guaranteed market contract under the Veterans Emergency Housing Act.

The company is now producing 10 houses a day. With the government assuming the marketing risk involved in greatly expanded production, the company has agreed to step up its output to 30 a day by January, 40 by February and 100 a day by June. The market guarantee also will assist the company in obtaining the additional financing required for its scheduled 1,000 percent increase in rate of production.

The directive provides for the manufacture of two models. One is a story-and-a-half model, already in production, which, it is estimated by the National Housing Agency, will be available to veterans at an average price of $5,400, erected and complete except for range, refrigerator, and brokerage and other fees. This includes an allowance of $647 for the lot.

The other is a one-story model which, it is estimated, will cost the veteran an average of $6,400, including an allowance of $800 for the lot. The actual price of both models will vary somewhat depending on the locality and cost of the land.

These prices are subject to reduction after Feb. 1, 1947, on the basis of economies to be achieved through mass production.

Both models have the same floor space—768 sq. ft.—but in the lower-priced model the two bedrooms are on the second floor while the other model has all rooms on one floor.

The house as shipped from the factory includes, in addition to the plywood panels and steel beams and plates for erecting the house shell, plumbing fixtures, complete heating unit (oil, gas or coal), hot water tank (electric or gas), plywood kitchen cabinets, and a double compartment sink. The erector provides grading and foundation, painting, glass and glazing, and roof shingles.

The company now has 400 dealers in 23 states; it plans national distribution in all 48 states. Wood parts, comprising two-thirds of the house, are shipped five houses to a box car, from plywood plants at Tacoma, Washington; White, Washington; and Chicago. Steel parts are shipped from the company's plant at Chicago, five units to a truck.

A GREAT BUILDER

During the last 44 years the U. S. Bureau of Reclamation has constructed 100 storage dams with a total reservoir capacity of 67,900,000 acre-feet, according to a summary of construction results from June 30, 1902 to June 30, 1946. The total length of canals constructed is 15,300 miles and the combined length of 355 tunnels on Reclamation projects is more than 100 miles. The bureau has built 33 power plants with an installed capacity of 2,178,000 kilowatts. The output for these plants for the last year exceeded 13,000,000,000 kilowatt hours.

Appoint J. W. Follin assistant FWA head

Appointment of James W. Follin, of Washington, D. C., as assistant administrator of the Federal Works Agency, was announced last week by Major General Phillip B. Fleming, Administrator.

J. W. Follin

Mr. Follin, a civil engineer with varied experience in construction and trade association activities, has been managing director since 1939 of the Producers' Council, Inc., national organization of manufacturers of building materials and equipment.

A native of Washington, Mr. Follin received his civil engineering degree at the University of Michigan. His professional career has included service as chief engineer of the Philadelphia Federation of the Construction Industry and as advisory engineer to the Reconstruction Finance Corporation in the Third Federal Reserve District. Other engineering assignments have included service as assistant to the chief engineer of the Pennsylvania Department of Highways; staff engineer, Bureau of Municipal Research at Philadelphia; assistant sanitary engineer for Flint, Mich., and assistant sanitary engineer for the State of Michigan.

Caracas water contract cancelled by Venezuela

Venezuela's National Institute of Sanitary Works has announced the cancellation of a contract with the Groves-Drake Construction Co., effective Sept. 30, for the construction of the Caracas water supply dams and pipelines. Spokesmen for the institute told *Engineering News-Record* that the work, which is about 60 percent completed, would be finished by force account and with the aid of United States consultants who would be called in from time to time for advice. The institute is a government agency.

The Groves-Drake company (a combination of S. J. Groves and Sons Co. and Johnson, Drake & Piper, Inc.) received the contract for the Caracas job about two years ago on a cost-plus-fixed-fee-basis. It is stated that the original contract, made under wartime conditions, contemplated the expenditure of about $8.000,000. To date some $16.000.000 has been spent, and the work is less than two-thirds completed.

Designs for the project were made by Parsons, Brinckerhoff, Hogan and Macdonald, consulting engineers of New York City. The institute says that this firm was relieved of most of its supervisory work a few months ago and that a formal cancellation of the contract is now being negotiated.

Spokesmen for both the contractor and the consulting engineers report that relations with the institute have not been too congenial since the change in Venezuela's national government last October. Details of the project were given in *Engineering-News Record* (Feb. 21, 1946, vol. p. 297).

Crawler tractor production resumed

Following closely on the settlement of the strike at the Pittsburgh works of the Allis-Chalmers Manufacturing Co., employees at the company's Springfield, Ill., plant voted overwhelmingly to return to work. Terms of the contract included acceptance of a wage increase of 13½ cents an hour to bring the total increase since V-J day to 18½ cents, as well as the company plan for government supervised strike votes and irrevocable voluntary checkoff of union dues and assessments.

Production at the Springfield plant has been resumed. The principal product of the unit is the industrial crawler type tractor. About 2,200 workers are employed in the Springfield plant.

ENGINEERING SCHOOL NEWS

Surplus government buildings for Illinois Tech—Georgia Tech campus enlarged by gift—Faculty changes listed

To accommodate an expected enrollment of 6,350, including 5,025 veterans, Maj. Gen. Philip B. Fleming, Federal Works Administrator, has authorized the transfer of four government-owned surplus temporary buildings from Illinopolis, Ill. to the campus of Illinois Institute of Technology, Chicago, for conversion into classrooms.

Surplus equipment for the buildings may also be provided after the War Assets Administration has given individual veterans their priority on certain types of surplus equipment.

George H. Field, Commissioner of the Bureau of Community Facilities, Federal Works Agency, said the institute's present facilities can accommodate only 5,150; including 4,000 veterans. The surplus buildings, plus expansions planned by the institute, will make possible the enrollment of 1,025 additional veterans.

One of the new structures will contain four drafting rooms, two lecture rooms and eight offices; another, eight classrooms, a lecture hall and four offices; the third to be used as a reading room and library, and the fourth to contain four classrooms, a lecture hall, four offices for staff members, a kitchen and a cafeteria.

The Mead Act veterans' educational facilities program authorizes the transfer of surplus government-owned buildings to colleges for use as classrooms, laboratories and for other purposes except housing.

The largest number of faculty promotions ever made at one time in the 58-year history of Georgia School of Technology has been announced by President Blake Van Leer. With the approval of the Board of Regents, and because of merit, 32 professors were promoted to the next higher professorial ranks. In the division of engineering, the list is led by Homer S. Weber, who was made professor and head of the department of mechanical engineering.

L. W. Robert, Jr., Atlanta construction engineer, has given Tech a tract of land worth between $35,000 and $40,000 located on Williams Street and Techwood Drive. Officials of the State Board of Regents said the tract would be used for the erection of a student activities building.

Mr. Robert entered Tech in 1903 at the age of 15. He was graduated in 1908 with a B. S. in engineering.

W. Sherman Smith, associate professor of civil engineering at the University of Toledo, Ohio, has been promoted to assistant dean of engineering. He has been a member of the engineering department since early in 1919.

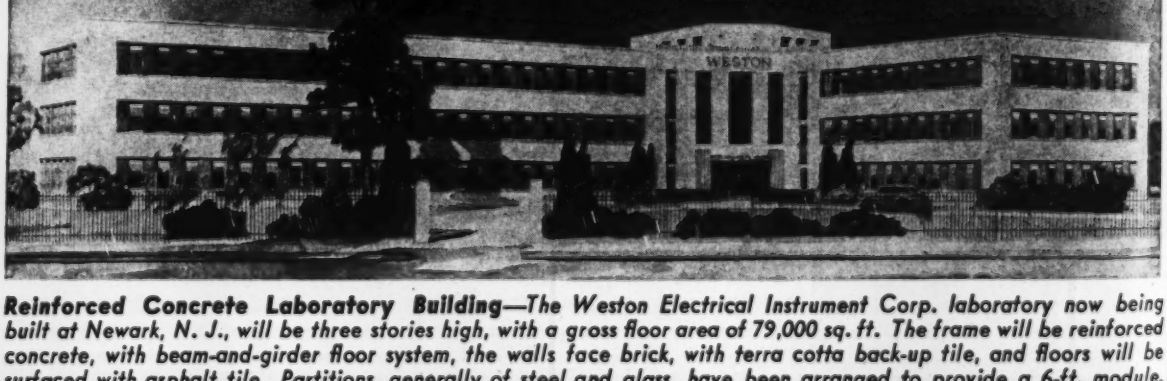
William R. Mullee has been appointed professor of administrative engineering at the New York University college of engineering. Mr. Mullee was a member of the faculty of Rutgers University, extension division, from 1938 to 1941. In the latter year he was loaned to the War Production Board to aid in formulating training courses.

The University of Kentucky trustees have named Daniel V. Terrell dean of the college of engineering, retroactive to Sept. 1, and director of the engineering experiment station. Terrell, acting dean since July 1, succeeds James H. Graham, who accepted another assignment at the university. The new dean has been a member of the university staff since 1912 and has been assistant dean of the college four years.

W. N. White, engineer of the department of municipal affairs, Regina, Sask., has been named lecturer in engineering, University of Saskatchewan, Saskatoon, Sask.

R. D. Gibbs of the engineering department of Montana State College, has been named dean of the college of engineering, Bradley University, Peoria, Ill. He is a graduate of Purdue, 1933. He taught at the University of Minnesota from 1937 to 1941 and later was head of the engineering department at South Dakota State College.

After having been on leave of absence since February, 1943, to work on stress analysis for the Goodyear Aircraft Corp. and in physical research for the B. F. Goodrich Co., Gerald K. Gillan has returned to the University of Missouri as an assistant professor of civil engineering. After graduation from the University of Nebraska in 1940 he did graduate work and teaching at Missouri and received his master of science degree in civil engineering there in 1942.



***Reinforced Concrete Laboratory Building**—The Weston Electrical Instrument Corp. laboratory now being built at Newark, N. J., will be three stories high, with a gross floor area of 79,000 sq. ft. The frame will be reinforced concrete, with beam-and-girder floor system, the walls face brick, with terra cotta back-up tile, and floors will be surfaced with asphalt tile. Partitions, generally of steel and glass, have been arranged to provide a 6-ft. module. Each laboratory will be provided with six types of electric services, housed along the exterior walls of each story. The structure was designed and is being built by Walter Kidde Constructors, Inc., of New York.*

Study river pollution in many localities

Studies looking toward correction of pollution of river waters in three states were in progress last week, as governmental agencies gave evidence of increasing realization of the importance of eliminating the fouling of streams.

At Peoria, Ill., a city council committee aided by Carl Gross, engineer for the State Sanitary Water Board, is making a special study of pollution of the Illinois River in the Peoria area. The study is a part of a program that may see the eventual installation of sewage treatment plants at 175 Illinois river towns, water board officials said.

In Virginia, the state Water Control Board, created by the 1946 legislature, announced it had decided on a form of pollution certificate application, to be used by industries planning expansions or new industrial operations along the state streams. On receipt of the applications, board engineers will pass on plans for sewage treatment.

The Indiana stream pollution control board has approved preliminary and final plans for sewerage works in the state costing an estimated $6,000,000.

The largest sewerage project for which final plans were approved is Mishawaka's $1,430,000 disposal system.

Other plants given final approval included those for sewers at Rose Polytechnic Institute, Terre Haute; interceptor sewers and works at the Logansport State Hospital, and additional sewers at Union City.

The largest project on the list is a disposal plant and sewer system at Terre Haute, for which preliminary plans were approved. Preliminary plans also were approved for a project at Hobart and revision of a project planned for Decatur.

Large public works pending in Hawaii

Financed by the Federal Works Agency, plans are being prepared for $3,600,000 worth of water projects and public buildings in Hawaii.

In addition to the 15 projects making up the $3,600,000 total, approval is pending on 14 others, and still more will be submitted, reports C. W. Schruth, FWA district engineer for Hawaii.

The projects include: A Waiahole tunnel water project on Windward Oahu for the suburban water system, $1,080,000; a Kauai water project, between Waimea and Kekaha, $50,000, and numerous others throughout the islands.

$4 million sewage plan given Florida cities

A complete sewage disposal plan that would cost about $4,427,000 to serve three Florida cities, was formally accepted recently by a special citizens' committee on eradicating lake pollution, and will be submitted to officials of three municipalities involved.

The cost-study report was made by Joe Williamson, Jr., representing the firm of Russell & Axon, sanitary engineers of Daytona Beach and St. Louis, Mo. Officials of the towns of Palm Beach, West Palm Beach, Lake Worth and the county government must pass on the project before any further action is taken.

The plan calls for a sewage collection system on Lake Worth, with disposal, after pre-treatment, into the Gulf Stream through an ocean outfall.

The system would provide for interceptor lines running north and south along lakefront on both shores, conveying all sewage to a central treatment and pumping plant to be constructed in Palm Beach. Sewage collected from Lake Worth and West Palm Beach will be brought to a mainland pumping station where it would be pumped across to the pretreatment plant through a separate pipeline. From the treatment plant, where greases and heavier solids would be screened out, the effluent would be forced through an outfall line into 90 feet of water in the Gulf Stream, nearly a mile offshore.

Canadian housing group starts 3,000 units in '46

Housing Enterprises of Canada Ltd., a limited dividend housing company organized in Canada under the provisions of that country's national housing act of 1944, has during the year 1946 completed or placed under contract a total of 3,451 housing units in 30 Canadian cities, according to a recent report.

Life insurance companies operating in Canada are owners of the company, with a subsidiary operating company being organized for each building operation. The Dominion government provides mortgage money at 3 percent to cover 90 percent of the capital cost of these developments, with the insurance companies providing the remainder—an initial equity investment of about $5,000,000. The government guarantees a 2½ percent return on this investment. The organization undertakes to manage its projects for a period of 50 years, during which the capital cost will be fully amortized.

Chicago allotted funds to design filter plants

Advances totalling $275,000 have been approved for the City of Chicago by the Federal Works Agency to prepare plans for two filter plants having an estimated overall cost of $57,000,000. Of the total, $192,500 is to be used in engineering design for a $40,000,000 central district water filtration plant and $82,500 for a $17,000,000 north district filtration plant. The city council on its own initiative had previously approved $1,000,000 in the 1946 city budget for preparing plans for these projects.

Preliminary engineering studies already are in progress for filtration facilities under a $50,000 appropriation made for the purpose by the city council. Reports are expected in November from two Chicago consulting firms engaged in the work: Alvord, Burdick & Howson, and Greeley and Hansen.

Financing study resumed for San Diego aqueduct

Assistant Commissioner of Reclamation William E. Warne has been designated by President Truman to serve again as chairman of the recently reconstituted President's committee on methods of financing the San Diego, Calif., water supply project.

Under an existing contract, the City of San Diego is obligated to lease or purchase the aqueduct system.

The committee was originally appointed by the late President Roosevelt in 1944, and included representatives of the War, Navy and Interior Departments, the Federal Works Agency, and the San Diego County Water Authority.

The committee is to make recommendations on the existing and potential financial burden of the city or the San Diego County Water Authority in connection with the aqueduct, and the extent to which a readjustment of that burden would be proper; and such additional legislation as may be required to carry out the recommendations of the committee.

The aqueduct taps the Colorado River aqueduct of the Metropolitan Water District of Southern California, and is now being completed by the Navy, under designs and specifications prepared by the Bureau of Reclamation. The structure will be 71 miles long, extending from the vicinity of San Jacinto to the San Vicente Reservoir near San Diego. It will be capable of delivering 50 million gallons of Colorado River water daily.

OBITUARY

John Arrington, 70, construction engineer of Washington state and Alaska, who retired in 1943, died Sept. 17 at Seattle. He studied civil engineering at Alabama Polytechnic College, and worked on building projects in Chicago, Detroit and Atlanta before moving to the Pacific Northwest in 1926. Since that time his projects have included Washington state capitol buildings at Olympia and University of Washington buildings at Seattle. From 1935 to 1939 he supervised construction at Sand Point Naval Air Station and later represented the Navy as general manager of civilian construction at the Sitka, Kodiak and Dutch Harbor naval bases in Alaska.

Henry J. Moore, 67, Boissevain, Man., died Sept. 21. He developed the International Peace Garden on the Manitoba-North Dakota boundary, the beautification of the Niagara peninsula, and he laid out the Queen Elizabeth highway in Ontario. For some years he was on the faculty of Cornell University.

Joseph K. Bancroft, 81, former vice-president of the Austin Bros. Bridge Company, Atlanta, Ga., died Sept. 28.

Clifford M. Norris, 58, president of the Morrison Construction Co., Chicago, Ill., and formerly vice-president and a director of the Lindoff-Bicknell Co., was killed in an automobile accident Sept. 27.

James R. Reid, 62, died Sept. 21, at Halifax, N. S. He had been a civil engineer on construction contracts and projects in Ontario, Quebec, New Brunswick and Nova Scotia.

Fred Julius Brown, 78, former Thurston County engineer at Olympia, Wash., died Sept. 29 at Yelm. He studied at the Olympia College Institute and later attended the College of Puget Sound in Tacoma.

Charles M. Brogan, 52, project engineer with the U. S. Government for 12 years, died Sept. 29, in Philadelphia, Pa. Mr. Brogan had recently been appointed Federal Housing expeditor for Lancaster County. A native of Downingtown, Pa., he was graduated from the University of Pennsylvania as a civil engineer in 1916. During World War I he was a sergeant in the 315th Infantry. Some of his work as a project engineer included the construction of the State Hospital in Warren, Pa., and numerous schools throughout the state.

Walter V. Scott, vice president and chief engineer of the Wigton-Abbott Corp., engineers and constructors, Plainfield, N. J., died Oct. 6, age 60. A graduate in civil engineering from Rensselaer Polytechnic Institute in 1909, Mr. Scott was principal assistant engineer in the Buffalo office of the Turner Construction Co. before joining the staff of the Wigton-Abbott Corp. about 20 years ago.

Robert L. Sackett dies, former Penn State dean

R. L. Sackett, dean emeritus of the School of Engineering at Pennsylvania State College, died in New York, Oct. 7, age 79.

A civil engineering graduate from the University of Michigan in 1891, Dean Sackett was professor of sanitary and hydraulic engineering at Purdue University from 1907 to 1915, serving also as consulting engineer to the Indiana State Board of Health. In 1915 he went to Pennsylvania State College as dean of the engineering school, retiring in 1937.

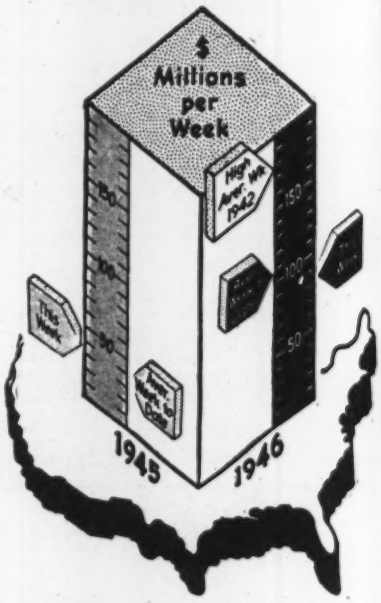
Although nominally retired, since 1937 Dean Sackett has taken a leading part in the affairs of the Engineers Council for Professional Development, especially in the work of the Committee on Student Selection and Guidance. When C. E. Davies, secretary of the American Society of Mechanical Engineers was called to active military service, Dean Sackett was named assistant to the secretary of ASME and served in that capacity during the war. He also served as assistant to the secretary and secretary of ECPD for that period.

General Fleming named head of safety group

President Truman has appointed Maj. Gen. Philip B. Fleming, Administrator of the Federal Works Agency, chairman of a new Federal Inter-Agency Highway Safety Committee. The creation of the new committee follows the 3-day National Highway Safety Congress held in Washington in May (*ENR* May 16, vol. p. 767).

At that time early creation on an equal status of the three following safety committees was recommended: a coordinating committee for federal departments, a national committee of state officials, and a national committee of non-official organizations.

ACTIVITY CONSTRUCTION



As Reported this week to.... *Engineering News-Record*

CONTRACT VOLUME

Continental U. S. Only (Thousands of Dollars)

	Week of Oct. 10 1946	Cumulative 1946 (41 wks.)	Cumulative 1945 (41 wks.)
Federal	$2,860	$551,491	$684,373
State & Mun.	21,808	1,155,874	275,748
Total Public.	$24,668	$1,707,365	$960,121
Total Private	57,277	2,591,460	644,070
U. S. Total.	$81,945	$4,298,825	$1,604,191

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Type of Work	This Week	Cumulative 1946 (41 wks.)	Cumulative 1945 (41 wks.)
Waterworks	$1,810	$91,042	$40,835
Sewerage	1,791	90,163	26,310
Bridges	1,071	108,093	28,215
Highways	13,067	634,221	177,780
Earthwork, Waterways	1,441	315,072	42,563
Buildings, Public.	4,847	336,048	417,845
Industrial	36,881	842,238	400,962
Commercial ..	17,167	1,578,880	166,619
Unclassified	3,870	303,068	303,061

NOTE: Minimum size projects included are: Waterworks and waterway projects, $22,500; other public works, $40,000; industrial buildings, $55,000; other buildings, $205,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1946 (41 wks.)	Cumulative 1945 (41 wks.)
NON-FEDERAL	$1,243,696	$631,446
Corporate Securities	357,098	150,531
State and Municipal	661,598	317,315
RFC Loans	.....	24,600
REA Loans	.....	60,000
Fed. Aid Highway	225,000	79,000
FEDERAL	$1,672,982	$1,049,898
Total Capital	$2,916,678	$1,681,344

ENR INDEX NUMBERS

Index Base=100		1913	1926
Construction Cost..	Oct. '46	360.94	173.50
Building Cost.....	Oct. '46	272.74	147.43
Volume	Sept. '46	223	98

CONSTRUCTION REPORTS

Bids Asked — Low Bidders — Contracts Awarded

(Daily service also available—Write for details)

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager *J. A. MAHONEY, Reports* *J. V. McEWEN, M. R. ROESSLER, Statistics*

WATER SUPPLY

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 14

N. Y., New York—Comr. Water Supply, Municipal Bldg., New York, Zone 7, hauling, laying watermains, appurtenances, 22, 56, 61, 74 and 82 Aves., 49, 169, 204, 206 and Beach 5 Sts., 246 Pl., Commonwealth Blvd. and Ives Court, Queens Boro. Plans deposit $1.

Bids Asked October 15

N. Y., Brooklyn—Comr. Water Supply, Gas & Electricity, Municipal Bldg., New York, 7, watermains, appurtenances in Flushing, Myrtle and Park Aves and in rounds of Marcy Houses, Brooklyn Boro. Plans deposit $1.

Bids Asked October 16

N. C., Roanoke Rapids—Town, 40,000 ft. water and 30,000 ft. sewer extens. Plans deposit $10. W. C. Olsen, 5 Exchange Pl., Raleigh, engr. CD 8/16—ENR 9/5.

Bids Asked October 29

Fla., Tallahassee—City, c/o City Manager, WW and sanitary sewerage sys. imprvs. Plans deposit $25. Wiedeman & Singleton, Citizens & Southern Bank Bldg., Atlanta, Ga., engrs.

Bids Asked October 31

†**Wyoming**—Bureau Reclamation, Dpt. Interior, Denver, Colo., furnishing, del. f.o.b. cars at shipping point or f.o.b. cars at Bonneville, one 40,000 gal. welded-steel water storage tank for the water supply sys. at the Boysen Govt. Camp, Boysen Unit, Missouri Basin Proj. Spec. 1490. W. R. Young, ch. engr.

SOON LETS CONTRACT

Tex., San Antonio—Cassidy Building Material Co., Gunter Bldg., soon lets contract water lines. $30,000.

LOW BIDDERS

Ala., Birmingham—Garber, Cook & Hulsey, 2024 1 Ave. N., waterworks, sewerage, from L. F. Wilder, 1631 East Lake Blvd. $43,282. J. W. Goodwin Eng. Co., Martin Bldg., engr.

Ala., Centre—City, c/o Mayor, WW extens., from E. N. Murray, Buena Vista, Ga. $21,341. J. W. Goodwin Eng. Co., Martin Bldg., Birmingham, engr. CD 9/13—ENR 9/19.

Ill., Chicago—City, Dpt. P. Wks., City Hall, Sept. 25, 36 in. c.i. pipe A3, centrifugal type, from American Cast Iron Pipe Co., 38 S. Dearborn St., Chicago, $129,270***B 36 in. prestressed concrete pipe from Material Service Corp., 32 N. La Salle, $125,909***Bill of Material C, steel shell encased in concrete, from Preload Cement Corp., 420 Lexington Ave., New York, N. Y., $99,975. Received no bids Sept. 25, Bill of Material A, 36 in. class B c.i. pipe.

Tenn., Jasper—Jasper Utility Dist., c/o W. G. Phillips, Jasper, rejected bids Aug. 26, WW. sys. Will readvertise. CD 8/16.

Wash., Bellevue—Water Dist. 68, Sept. 27, 195,000 ft., 2- to 12-in. watermains, from Thorburn & Logozo, 4608 36 Ave. S.W., Seattle. $337,954. CD 9/17—ENR 9/19.

Wash., Puyallup—City, City Hall, Sept. 25, 2 m.g. standpipe, from Chicago Bridge & Iron Works, 22 Battery St., San Francisco, Calif., $38,135. Est. $60,000. CD 8/30—ENR 9/5.

CONTRACTS AWARDED

Calif., Sacramento—City, City Hall, watermains from 46 and D Sts., exten. to 50 and F Sts., to Pacific Pipe Line Constr. Co., 2128 San Pablo Ave., El Cerrito. $75,491. F. Klaus, City Hall, city engr.

Fla., Ft. Lauderdale—City, c/o city mgr., WW sys., Sect. 1, to James P. Small & Co., 1535 Steel St., Jacksonville. $380,460. Sect. 2, to E. W. Bacharach & Co., Rialto Bldg., Kansas City, Mo., $39,980. Bids 9/9. CD 8/30.

Ga., Manchester—City, WW. imprvs., incl. filtration plant, 200,000 gal. clear well, to Searcy Black, 455 Clairmont Ave., Decatur. Est. $50,000. Wiedman & Singleton, C. and S. Bank Bldg., Atlanta, engrs. CD 12/21—ENR 1/10.

Minn., Park Rapids—Village, W. Langguth, clk., 21,277 lin. ft. 4 and 6 in. watermains, to Alexander Constr. Co., 4641 Hiawatha Ave., Minneapolis. $75,402. Bids 9/23. CD 9/11—ENR 9/19.

Pa., Phila.—Dpt. P. Wks., City Hall Annex, Queen Lane Pumping Station alterations, addns. WW1-285, to James N. Driscoll, 27 E. Durham St., $32,840***Fox Chase Pumping Station addns., alterations, WW1-285, to Laub Constr. Co., 1518 Walnut St., $81,052***Fox Chase Pumping Station, addns., alterations, WW1-286, to W. V. Pangborne & Co. Inc., 1927 Montgomery Ave., $49,430. Grand total $166,321. Awarded 9/27. Elbert J. Taylor, water bureau ch.

Tex., Houston—Mulberry Manor, Inc., H. M. Cohen & M. A. Silverman, 2310 Leeland St., c.i. watermains, to W. A. McClendan, 4617 Walker St. $31,100. Lloyd & Morgan, 2310 Leeland St., engrs.

Tex., Richardson — J. H. Cardwell, B. B. Owens & Ed. Byers, 3 mi. 10 in. c.i. water lines. Purchase-Hire. $32,000. CD 9/5—ENR 9/12.

Wash., Soap Lake—Town, Town Hall, water sys. and reservoir, to Morrison-Knudsen Co., Inc., 319 Broadway, Boise, Idaho. $235,583. Bids 8/28, awarded 9/27. CD 8/14—ENR 8/22.

Que., Sault Ste. Marie—P. Utilities Comn., W. M. Cornell, mgr., 630 ft. tunnel, 4 ft. diam; 2 shafts, 5 ft. diam. and all auxiliary works in connection with project under tailraces of Great Lakes Power Co., Ltd., to Atlas Constr. Co., Ltd., 118 Richmond St. W., Toronto, Ont. About $37,000. Proctor, Redfern & Laughlin, 36 Toronto St., Toronto, Ont., engr.

SEWERS, WASTE DISPOSAL

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 15

Ill., Fairfield—City Clerk, City Hall, WW and sewerage imprvs. Plans deposit $30. Warren & Van Praag, Inc., Standard Office Bldg., Decatur, engr. CD 9/4—ENR 9/12.

Pa., Eagleville—Eagleville Sanatorium for Consumptives, 1322 Fitzwater St., Phila., sewage disposal plant. $50,000. S. M. Swaab, Fidelity Phila. Trust Bldg., engr.

Bids Asked October 16

N. Y., St. George—President Richmond Boro, Boro Hall, Zone 1, sanitary sewers in Parkinson Ave. from Cameron Ave. to point about 100 ft. south of Reid Ave., etc.

PROJECTS COVERED

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks $22,500; other public works $40,000; industrial buildings $55,000; other buildings $205,000.

Classes of Construction

(Name in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges
Streets & Roads
Earthwork, Waterways
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings
Unclassified

Stages Reported

PROPOSED WORK: Including appointment of engineers or architects.

BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR.;

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Symbols and Abbreviations Include:

♦ Federal Government
★ Project of $1,000,000 or over.
ENR Engineering News-Record
CD Engineering News-Record Construction Daily

Va., Lamberts Point—Hampton Roads Sanitation Dist. Comn., 322 Flatiron Bldg., Norfolk, Lamberts Point sewerage treatment plant. Over $100,000. Aldrich & Buck, 112 E. 19 St., New York, N. Y., engrs.

Va., Newport News—Hampton Roads Sanitation Dist. Comn., 322 Flatiron Bldg., Norfolk, boat harbor sewerage treatment plant. Over $100,000. Greeley & Hansen, Newport News, engrs.

Fla., Daytona Beach—City, Daytona Beach, storm sewers, incl. relaying necessary utility lines. Plans deposit $25. Russell & Axon, 415 S Palmetto Ave., Daytona Beach, engrs. CD 8/26—ENR 8/29.

SOON LETS CONTRACT

Tex., San Antonio—Cassidy Building Material Co., Gunter Bldg., soon lets contract sanitary sewers. $40,000.

LOW BIDDERS

Calif., Hughson—Hughson Sanitary Dist., 365 Hughson Ave., rejected bids Sept. 27, concrete sanitary and trunk sewers; unit 1 collection sewers, L.B. $80,565; unit 2, domestic sewage facilities, L.B. $35,093; unit 3, industrial sewage facilities, L.B. $57,278. CD 9/24—ENR 9/26.

Calif., Los Angeles—City, City Hall, rejected bids Sept. 11, repairing central outfall sewer, Sta. 303 plus 45 to Sta. 410 plus 39. Est. $160,000. L. Aldrich, City Hall, engr. CD 8/27—ENR 8/29.

Calif., Sacramento—Sanitation Dist. 1, c/o E. A. Fairbairn, co. engr., Courthouse, Sept. 30, welded steel force main and river levee crossing 2 mi. from here, from McGuire & Hester Co., 796 66 Ave., Oakland. $64,964. CD 9/10—ENR 9/12.

Ore., Milton—City, City Hall, rejected bids Sept. 24 sewer sys. L.B. $147,221; disposal plant, L.B. $117,950; sewer house connections, L.B. $31,750. CD 9/16.

Ore., Sandy—City, City Hall, rejected bids Sept. 23, sewerage sys. and disposal plant. L.B. $94,000. CD 9/10—ENR 9/12.

Tex., Houston—City, M. A. Westerman, secy., Sept. 30, concrete storm sewers in Bowling Green Blvd., from Knutson Const. Co., 2233 Commerce Blvd., $96,507; monolithic concrete storm and concrete sewers in Sunnyland St. from Gerald Mora, 312 Sabine St., $67,635.

Tex., Houston—City, M. H. Westerman, secy., Sept. 23, storm sewers in Revelle Rd., from Russ Mitchell Inc. & Bishop Constr. Co., 2203 Jefferson St. $77,827.

Tex., Houston—City, sanitary sewers in Brays Bayou along route of Houston-Galveston Super-Express way, from J. D. George, 3331 Parkwood Dr. $75,282.

Va., Blacksburg—Virginia Polytechnic Institute, Blacksburg, Sept. 20, sewage treatment works, from A. H. Guion & Co., Wilkinson Blvd., Charlotte, N. C., $255,427. Begg & McGauhey, Blacksburg, engrs.

Wash., Pullman—City, City Hall, rejected bids Sept. 24, 2 stage, bio-filtration type sewage treatment plant. L.B. $231,445. CD 9/4—ENR 9/12.

CONTRACTS AWARDED

Calif., San Leandro—City, City Hall, San Leandro, 30- to 54-in. rein.-con. storm sewer in Davis St. between Gardner Blvd. and San Francisco Bay, day labor. C. P. Martin, City Hall, San Leandro, city engr. CD 9/20—ENR 9/26.

Ga., Atlanta—City, c/o City Council, Atlanta, lateral sewers in various sections of city, to Nichols Const. Co., 1190 Caroline N. E. St. $48,076. CD 8/26.

Kan., Leavenworth—City, J. C. Walker, clk., sewers, to J. L. Clark, Leavenworth. $36,672. CD 12/28—ENR 1/10.

Okla., Oklahoma City—City, 18- to 60-in. concrete storm sewer, Virginia Ave., to Osage Constr. Co., 1413 S. Blackwelder St., $173,573. Est. $175,607. Bids 9/24, awarded 10/1. CD 8/23.

Pa., Phila.—Dpt. P. Wks., City Hall Annex, sewers, Schedule C, S.D. 101-Southwest Main Gravity Intercepting Sewer in Mingo Ave., to Acchione Contg. Co., 1407 McKean St. $381,230. Bids 9/15, awarded 9/19. Thomas Buckley, ch. engr.

Tex., Amarillo—City, 6,000 ft. sewers, to W. S. Dickey Clay Pipe Co., Texarkana. $42,870. Bids 8/27. CD 8/19/46—ENR 8/23/45.

Tex., Woodville—City, sanitary sewerage sys., extens., addns. Purchase & Hire. Approx. $50,000. Garrett Eng. Co., 1806 Milam St., Houston, engrs. CD 9/25—ENR 10/3.

BRIDGES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 15

South Carolina—State Hy. Dpt., Columbia, 150 ft. rein.-con. bridge over Long Cane Creek near Abbeville, Route 185, S. C. Docket 1.239; FAP S-152 (2) Abbeville Co., Plans deposit $2; re-wiring lighting sys. of the Gervais Street Bridge over Congaree River at Columbia, Route 1, S.C. Docket 3240.213, Lexington and Richland Counties; constr. Piers A-H (inclusive) being portion 3,886 ft. bridge over Santee River at Leneuds Ferry, near Jamestown, Route 511, S.C. Docket 82245.202.3-FAP F-412 (8), Berkeley, Georgetown and Williamsburg Counties, Plans deposit $2; 310 ft. rein.-con. bridge over Shem Creek and 0.163 mi. graded and bituminous surfaced approaches at Mt. Pleasant, Route 17, S.C. Docket 10.288 FAP F-2535 (1) Charleston Co., Plans deposit $3; constr. Piers A through F and End Bent 2 of bridge 6 over Great Pee Dee River and Swamp near Society Hill, Route 15, S.C. Docket 1635.-208.2-FAP FI-462 (3), Contr. 2, Darlington and Marlboro Counties; 210 ft. and 120 ft. rein.-con. bridges over Buck Swamp and 600 ft. rein.-con. bridge over Little Pee Dee River near Lake View, Route 41, S.C. Docket 17.236 FAP S-172 (1), Dillon Co.; 300 ft. rein.-con. bridge over Coosawhatchie River and 0.042 mi. earth approaches near Hampton, Route 363, S.C. Docket 25.240, FAP S-135 (1) Hampton Co.; triple 10x10 ft. rein.-con. box culvert at Jackson's Branch near Dentsville, Route 1, S.C. Docket 40.302, Richland Co. Plans deposit $2 each.

West Virginia—State Hy. Comn., Charleston, grading, draining, asphaltic concrete on macadam paving, 0.766 mi. approaches to Junction Bridge over Mill Creek Route 50, FAP F-202 (6) Hampshire Co.; Junction Bridge 1627 continuous steel I-beam spans, 48 ft., 64 ft. and 48 ft. on concrete substructure, FAP F-202 (6) Hampshire Co.; Sycamore Bridge 952.1 and grading, draining, concrete widening and bridge widening for two 50 ft. concrete deck girder spans and approaches at Ripley, FAP F-158 (14) Jackson Co.; grading, draining and concrete paving 0.894 mi. approaches to Buffalo Creek Bridge at Macember, FAP F-151 (8) Buffalo Creek Bridge 1626, three 45 ft. concrete deck girder spans on concrete substructure, FAP F151 (8), both Preston Co.; floor sys. St. Marys Bridge 1463, over Ohio River, SP 3792 Pleasants Co.

Bids Asked October 16

Louisiana—State Hy. Dpt., Baton Rouge, repairing bridge and fender sys. on East Park Ave. bridge over Intra Coastal Canal on Hy. 965, SP 855-04-07, at Houma, Terrebonne Parish. Plans deposit $1.50. CD 9/26—ENR 10/3.

★**New York**—Bureau Accounts & Contrs., Albany, 3 rein.-con. rigid frame highway grade separation structures on Van Wyck Expressway at Southern Parkway, N. Conduit Ave. and South Conduit Ave, FAVWE 4601, Queens Co. $1,910,000. Plans deposit $20.

Bids Asked October 21

Wash., Tacoma—City, City Hall, rein.-con. arch span bridge on E. 34 St. from B to D Sts., replacing wooden structure. $275,000. Plans deposit $5. B. Bantz, city engr. CD 2/21—ENR 3/7.

Bids Asked October 25

Pennsylvania—State Hy. Dpt., Harrisburg, rein.-con. T-beam bridge over Mill Creek, and bituminous on crushed aggregate surfacing 2,123 ft. L.R. 40044 (7), 40045 (3), 3.5 mi. south of Laflin Boro. Luzerne Co. Plans deposit $2.50. T. C. Frame, c/o owner, ch. engr.

Bids Asked November 6

Mo., St. Louis — City c/o Milton M. Kinsey, pres. Bd. Pub. Service, 304 City Hall, 12 and Market Sts., Zone 3, installing expansion joints, consisting sliding type of two angles, plate about 90 ft., fastened to existing rein.-con., asphalt resurfacing roadway on the highway deck of the Douglas Mac Arthur Bridge across the Mississippi River between St. Louis, Mo., and East St. Louis, Ill. $115,000. W. Crecelius, Dpt. the President, 301 City Hall, ch. engr. Bridges & Buildings. CD 7/18—ENR 7/26.

LOW BIDDERS

Illinois—State Div. Hys., Springfield, Sept. 27, bridge over Spring Creek and bridge over Stevens Creek, paved approaches to both bridges on Route 51, approx. 1 and 8 mi. respectively, north of Decatur, Macon Co., from J. L. Simmons Co., 2146 N. Woodford St., Decatur. $162,559. CD 9/6.

Kansas—State Hy. Dpt., Osborne, rejected bids Sept. 10, Bridge 38.7, 60 - 70 - 60 ft., continuous steel beam spans, Proj. F 520 (10), Russell Co. L. B. $48,023. CD 8/27—ENR 8/29.

Kentucky—State Dpt. Hys., Frankfort, rejected bids July 12, superstructure, bridge, Falmouth and Alexandria Rd., Pendleton Co. L.B. $148,786. CD 7/17—ENR 7/25, under LB.

Massachusetts — Commonwealth of Massachusetts, 20 Sommerset St., Boston, Sept. 26, widening Mattapan Bridge over Neponset River, Milton and Boston, from Coleman Bros. Corp., 40 Central St., Boston. $86,019. CD 9/17—ENR 9/19.

Miss., Pascagoula—State Hy. Comn., W. Spiva, dir., Jackson, received no bids Sept. 24, repairing bridge over Pascagoula River Marsh, Jackson Co. $40,000.

New Jersey—State Hy. Dpt., Trenton, Sept. 24, underpass at Union Ave. and underpass at Riverview Ave., Rte. 6, Sect. 22 A, Totowa Twp., Passaic Co., from Union Building & Constr. Co., 631 Main Ave., Passaic. $196,753. CD 9/4—ENR 9/12.

†**Oregon**—Pub. Rds. Admin., Bedell Bldg., Portland, rejected bids Sept. 27 bridges on Box Canyon Rd., Willamette National Forest, Lane Co. L.B. $133,778. CD 10/2, under LB.

Tex., San Antonio—Bexar Planning Bd., Courthouse Bldg., project abandoned overpass on Hildebrand Ave. $100,000. CD 6/25/45—ENR 7/12/45.

CONTRACTS AWARDED

Ill., Chicago—Cook Co., County Court House, rein.-con. slab bridge over Thorn Creek, Calumet Parkway, Sect. 066-0303-3 MFT, to Superior Constr. Co., 5113 S. Woodlawn St., $114,908***167 St. grade separation over Calumet Parkway to Arcole Midwest Corp., 221 N. La Salle St., $102,755*** 154 St. and Stony Island grade separation, to Michael J. McDermott & Co., 30 N. La Salle St., $202,659***Sect. 066-0303.1 MFT, Calumet Parkway Bridge, to T. McQueen, 1313 Circle St., Forest Park, $141,353. Grand total $561,-675. Bids 8/6. CD 8/1.

Kansas — State Hy. Dpt., Leavenworth, Bridge 10.5, FA 577 A (1), Leavenworth Co., to Reece Const. Co., Scandia. $57,774. Bids 9/20, awarded 9/25. CD 9/17.

N. Y., Rochester—City, reconditioning Platt St. bridge, to Standard Eng. Corp., 444 Broadway, Albany, $131,442. Est. $159,347. Bids 8/12, awarded 8/26. CD 8/1—ENR 8/8.

Oklahoma—State Hy. Dpt., Oklahoma City, concrete bridge on U. S. 70, east of Mannsville, Marshall Co., to Moran & Buckner, Muskogee, $204,401, est. $209,497*** rein.-con bridge on State Hy. 67, west of junction with U. S. 66, Rayburn, Creek Co., to Amis Constr. Co., 1647 Exchange St., Oklahoma City, $64,822, est. $65,020***rein.-con. bridge road, east of Lebanon, Marshall Co., to Burton-Miller Co., Ardmore, $55,515, est. $54,286. Grand total $324,738. Bids 9/24, awarded 9/25.

STREETS AND ROADS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 15

Iowa—State Hy. Comn., Ames, grading, etc. 5.146 mi. U. S. 75 from Merrill southwesterly, F-38 (4), over $40,000; 6.128 mi. U. S. 75 from Woodbury Co. line northeast F-273 (3), over $40,000, both Plymouth Co. tree stream retards, clearing, grubbing along Cedar River near Rochester, F-469 (3), Cedar Co., under $40,000. F. R. White, Ames, ch. engr.

Kansas—State Hy. Dpt., Colby, light type surfacing 7 mi. Proj. S 360 (2), Rawlins Co.; grading, concrete paving 0.377 mi. Proj. S 187 (1), Thomas Co.

South Carolina—State Hy. Dpt., Columbia, grading, bituminous surfacing 11.416 mi. Route 300, from intersection with Route 3 near Barnwell to intersection with Route 508 in Ulmers, S. C. Dockets 3.239 & 6.241 FAP S-168 (1) Parts 1, 2 and 3, Allendale and Barnwell Counties; 3.133 mi. Rd. 73 from Hy. 76 at Sandy Springs to intersection with Rd. 71 near Twenty-Three Mile Creek and of 1.702 mi. on Rd. 73 from Hy. 178 near Pickens Co. line to Route 88 at Oak Grove School, S. C. Docket 4.270, Parts 1 and 2, Anderson Co.; 6.363 mi. Route 108, from Route 9 in Cheraw to Route 100 at Teal's Mill Pond, S. C. Docket 13.248 FAP S-217 (1) Parts 1 and 2, Chesterfield Co.; 1.748 mi. Route 642 from Route 64 to Route 611 at Knightsville and 2.381 mi. on Roads 35 and 36 from Route 611 across Route 642 to Route 64 at Boone Hill Church, S. C. Dockets 18.232 and 18.235 FAP S-213 (1), Dorchester Co.; 4.13 mi. Route 230 from Aiken Co. line toward Colliers to point near Anderson Branch, S. C. Docket 19.229, PAP S-114 (3) Edgefield Co.; 1.183 mi. Route 38, from Hy. 1 to Lugoff, S. C. Docket 28.245, FAP S-183 (1) Kershaw Co.; 6.995 mi. Route 308, from Route 72 in Clinton to Route 30, S. C. Docket 30.247, Parts 1 and 2, Laurens Co.; 5.563 mi. Route 823, from intersection with Route 82 in Mt. Carmel to the Abbeville Co. line, S. C. Docket 33.231, Parts 1, 2 and 3, FAP S-196 (1), York Co.; 7.565 mi. Route 271, from Hy. 76 near Westminster to intersection with Route 28 in Walhalla, S. C. Docket 37.265, Oconee Co.; bituminous surfacing 0.908 mi. U. S. Route 15, being southwest approach to Santee River bridge, S. C. Docket 38.283, FAP FI-115 (5) Orangeburg Co.; 8.419 mi. Route 363, from intersection with Route 28 in Hampton to intersection with Route 6 at Luray with Spurs on Hoover and Locus Sts. in Hampton, S. C. Docket 26.239, Parts 1, 2, 3 and 4, FAP S-135 (1), Hampton Co.; rein.-con. box culvert over Warlsy Creek on Rd. 37 between Wiles Cross Rd. and Lone Star and grading, bituminous surfacing 8.003 mi. Route 117 from intersection with Route 210 to St. Matthews, incl. spurs on Mill St. and Railroad Ave. in St. Matthews, S. C. Docket 9.233, Parts 1, 2, 3, 4 and 5 and 9.234, FAP S-116 (1) Calhoun Co.

Virginia—Dpt. Hys., Richmond, rein.-con. paving, waterbound macadam, surface treating Conn's and 3 bridges, 0.54 mi. Route 58, Proj. S-186-AR1, B1; 144-AR1, B1; B3, Pittsylvania Co.; curbing, guttering, rein.-con. paving 0.26 mi. Rte. 33, S. Proj. S-539-M-2, town of West Point; bituminous macadam surface treating 1.25 mi. Rte. 15, S. P. S-672-CR1, Culpepper Co.; traffic bound macadam surface treating 3.92 mi. Rte. 42, S. P. S-1166-D2, Craig Co.; stabilized base surface treating 3.83 mi. Route 200, S. P. S-1296-E, Middlesex Co.; waterbound macadam surface treating 1.57 mi. Rte. 522, S. P. S-1417-C; 792-AR-1, Warren and Rappahannock Counties; rein.-con. paving 4.08 mi. Route 13, S. P. S-280-CW1, DW1, Accomack Co.; traffic bound macadam surface treating 3.23 mi. Route 42, S. P. S-1405-C, Bland Co.

West Virginia—State Hy. Comn., Charleston, grading, draining, concrete paving 1.423 mi. Seven Mile Creek, Nine Mile Creek and Goose Run Relocations, FAP N.R.H.-W.P.H.-P.A. 312(1), Cabell Co.; grading, draining, traffic bound base paving 1.31 mi. Mt. Alto-Chestnut Rd. Route 2, FAP F-306(3), Mason and Jackson Counties; grading, draining 3.7 mi. Hinton, Mercer Co. Line Rd., Bluestone Dam Relocation, Route 20, SP 61-A, 3494 and 3500 pt., Sect. 2, Summers Co.; grading, draining, concrete paving, asphaltic concrete on macdam surfacing 0.304 mi. Kenova Relocation of Hy. 60, via Oak St., SP 3586, Wayne Co.

Bids Asked October 16

Louisiana—State Dpt. Hy., Baton Rouge, grading, gravel surfacing, concrete paving, concrete scale pit, frame scale house, etc. 0.114 mi. Rigolets Hy., State Route 3, SP 6-04-21, Orleans Parish, Plans deposit $2 with cross-sections, $1.50 without cross-sections, sloping roadway, drainage structures, aggregate base course and three-application bituminous surface treatment, 1.245 mi. streets in Marksville, State Route 116 and C-2126, SP 143-01-04-805-32-02, Avoyelles Parish, Plans deposit $1; shaping roadway, soil-cement base course, three-applications bituminous surface treatment, etc. 7.999 mi. Lake Providence, Bowie Hy. Route 45, SP 161-09-05, FAP S-57 (1) and S-57 (2), East Carroll Parish, Plans deposit $3.50.

†**Mont., Missoula**—Pub. Rds. Admin., Post-office Bldg., grading 10.5 mi. west fork, Bitterroot River Forest Development Rd. $200,000. L. Martin, dist. engr.

★**New York**—Bureau Contrs. & Accounts, Albany, resurfacing 1.72 mi. Route 384, Delaware Ave. between Kenmore and Tonawanda, RC 46-130, Erie Co., $144,000, Plans deposit $5; reconstructing 11.73 mi. Route 11 between Chateaugay and Ellenburg, RC-46-7, Franklin and Clinton Counties, $910,000, Plans deposit $20; 2.03 mi. Route 11, southward from Watertown, City line, FARC-46-117, Jefferson Co., $405,000; 1.13 mi. Route A, Route 5 from Elm St., Camillus, westward, RC 46-121, Onondaga Co., $205,000; 2.65 mi. Route 256 from Dansville Station, northward, RC-46-129, Livingston Co., $290,000, Plans deposit $5; each on foregoing project; 2.52 mi. Route 21, RC-46-131, Steuben Co., $405,000, Plans deposit $10; 5 mi. Route 27 from Amagansett, eastward, RC-46-74, Suffolk Co., $366,-000; 4.7 mi. Route 96, southeastward, from Traumansburg, RC-46-128, SH 616, Tompkins Co., $501,000, Plans deposit $5 each; 9.61 mi. Route 9N between Hague and Ticonderoga, RC246-47, SH-46-10, Warren and Essex Counties, $1,627,000, Plans deposit $20.

N. Y., New York — President Manhattan Boro, Municipal Bldg., Zone 7, regulating and 3 in. sheet asphalt on concrete repaving 93, 109, 117, 118, 121 Sts., etc., Contr. 425; St. Nicholas Ave., 119, 128 Sts., etc.

Bids Asked October 17

Florida—State Rd. Dpt., Tallahassee, lime rock base surface treated pavement with premixed bituminous surface course, etc., 0.295 mi. Road 233, SP 1510-103; 3.778 mi. Road 64, SP 1503-106 between Road 230 and point approx. 3.778 mi. northwest, both Pinellas Co.; lime rock base with premixed bituminous surface, applying bituminous surface course on Gandy Bridge, approx. 6.596 mi. Road 64, SP 1509-105 and 1013-102, Pinellas and Hillsborough Counties; premixed bituminous surface course over existing pavement, approx. 1.86 mi. W. Shore Blvd. between R. 64 and Port Tampa, SP 1000-103, approx. 0.62 mi. Grand Central Ave. between Road 545 and point approx. 0.620 mi. east, SP 1000-104, both Hillsborough Co. H. P. Coloney, hy. engr.

New Jersey—State Hy. Dpt., Trenton, grading 1.8 mi. River Rd. (Clifton) to Route 2 (Rutherford), Route 83, Sects. 4 A and 5, Passaic and Bergen Counties; 1.02 mi. Route 83, Sect. 4 B, Passaic Ave. to River Rd., city of Clifton, Passaic Co.

Ohio—State Hy. Dpt., Columbus, grading, drainage structures, paving, constructing 2 concrete slab bridges, 1 bridge over Dry Run and other over Huffman Creek on 1.107 mi. S. H. 166, Auglaize Co.; grading, asphaltic concrete paving 0.753 mi. and concrete slab bridge over Camp Creek, S. H. 326, Portage Co.; grading, drainage structures, concrete paving 0.427 mi. and bldg. steel truss bridge over Maumee River, S. H. 59 and S. H. 53, Lucas and Wood Counties; grading, paving 0.118 mi. and concrete beam bridge over Queer Creek, S. H. 334 Hocking Co., $30,000; grading, drainage structures, asphaltic concrete paving 0.222 mi. and steel beam bridge over Big Indian Creek, S. H. 309, Clermont Co., $26,900; 1.631 mi. and bridge over E. 105 St. in Cleveland, and S. H. 3, Cuyahoga Co.; 0.98 mi. and bridge over Talawanda

STREETS AND ROADS (Bids Asked. Cont'd.)

Creek and Barkers Run and reconstructing 2 steel beam bridges over Barkers Run, S. H. 462, Butler Co.; grading, drainage structures, concrete paving 4.926 mi. S. H. 7, Gallia Co.; grading, drainage structures, asphaltic concrete paving 0.274 mi., C. H. 36, Pultney Twp., Belmont Co.; widening, asphaltic concrete resurfacing 0.839 mi. S. H. 309 and 533, 121,100; Williams Co.; grading, drainage structures, bituminous road mix surfacing 0.321 mi. S. H. 670, Meigs Co.; grading, drainage structures, traffic bound surface course surfacing, 0.174 mi. C. R. 255 Bethlehem Twp., Stark Co.; grading, bituminous surface treatment paving and constructing continuous steel girder bridge over Sugar Run, 0.899 mi. S. H. 243, Madison Co.; drainage structures 0.252 mi., S. H. 754, Ashland Co. $6,200.

Bids Asked October 23

California—State Div. Hys., Sacramento, furnishing, placing imported base material on 4.7 mi. highway between Redwood Summit and 1 mi. east of Redwood Creek, Humboldt Co. G. T. McCoy, Sacramento, state hy, engr.

Bids Asked October 25

Pennsylvania—State Hy. Dpt., Harrisburg, rein.-con. widening pavement, bituminous on native stone or crushed aggregate surfacing, exten. 6 rein.-con. structures, exten. 5 rein.-con bridges 40,054 ft. L.R. 356 (11), T.R. 96, from the Pa.-Md. State line north to Hyndman Boro, Bedford Co.; bituminous on crushed aggregate surfacing, grading for temporary approach 7,400 ft. L.R. 22077 (1) and Shippen St. from a point southeast of intersection of Twp. Rd. 696 to Royalton Boro, Dauphin Co.; bituminous on crushed aggregate surfacing, rein.-con. paving, also rein.-con. bridge and railroad trestle, etc. 4,784 ft. L.R. 0324, Spur S (1); 03134 (1), Armstrong Co.; two 22 ft. rein.-con. lanes, exten. 2 structures constr. bituminous on crushed aggregate surfacing 21,518 ft. L.R. 108 (11), T.R. U.S. 19 from point ¼ mi. from Washington City to point 4 mi. from Donaldsons Cross Roads, Washington Co., over $500,000; rein.-con. pavement incl. 1 rein.-con. and 1 cement rubble masonry structure, 16,446 ft. L.R. 91 (12), T.R. 157 between Oil City and Coal Hill, Venango Co.; rein.-con. paving, widening rein.-con. paving, reconstructing and exten. rein.-con. structure, 10,895 ft. L.R. 162 (7) T.R. 209, Schuylkill Co.; rein.-con. paving, bituminous on native stone or crushed aggregate paving, 16,622 ft. L.R. 43 (2), T.R. U.S. 30, between Chambersburg and Fayetteville, Franklin Co.; rein.-con. paving, 1 cement rubble masonry structure, shoulder grading, 6,131 ft. L.R. 247 (12), T.R. 711, Fayette Co.; rein.-con. paving, incl. rein.-con. structure, bituminous surface, railroad grading 3,536 ft. L.R. 59 (11), T.R. 322, Clearfield Co.; rein.-con. paving, bituminous on native stone or crushed aggregate surfacing, rein.-con. bridge and relaid brick pavement, 3,235 ft. L.R. 11024 (4), T.R. 164, Cambria Co.; rein.-con. paving, plate girder bridge and drainage, 6,283 ft. L.R. 221 (9), T.R. 36, Cambria Co.; rein.-con. paving, etc., 1,301 ft. L.R. 76 (14), T.R. 51, Beaver Co. Plans deposit $2.50 each. T. C. Frame, c/o owner, ch. engr.

Bids Asked October 30

California—State Div. Hys., Sacramento, grading, asphaltic concrete on crusher run paving 4 mi. road between Shields and Herndon Aves.; grading, surfacing with imported borrow and applying bituminous surfacing 8.6 mi. Fresno-Coalinga Rd. between Mt. Whitney Ave. and State Hy. Route 10, both Fresno Co. G. T. McCoy, Sacramento, state hy. engr.

Bids Asked October 31

California — State Div. Hys., Sacramento, traffic signal sys. at 16 intersection on Valley Blvd. between Westminster and Del Mar Aves. in Alhambra and San Gabriel, Los Angeles Co. G. T. McCoy, Sacramento, state hy. engr.

SOON LETS CONTRACT

Tex., San Antonio—Cassidy Building Material Co., Gunter Bldg., soon lets contract grading, site development, street paving. $60,000.

LOW BIDDERS

Alabama—State Hy. Dpt., Montgomery, rejected bids Aug. 16, imprv. 9.04 mi. Baldwin Co., L.B. $134,137; 0.028 mi. Greene Co., L.B. $41,692; 3.625 mi. Pike Co., L.B. $92,684; 5.908 mi. Barbour Co., L.B. $52,693. (Correction—status) CD 8/23—ENR 8/29, under Contracts Awarded.

†**Ark., Mountain Home**—U. S. Eng., 300 Bway., Little Rock, rejected bids Aug. 2, access road to Mallard Point, Norfork Reservoir, Inv. 03050-47-2. CD 7/16—ENR 7/25.

Ark., Nashville—Nashville Curb & Gutter Dist., rejected bids Sept. 23, curbing, guttering, drainage and soil cement base stabilization and asphalt seal coat paving. Will readvertise. CD 9/5—ENR 9/12.

★**California**—State Div. Hys., State Bldg., Los Angeles, Sept. 26, imprv. 4.5 mi. Los Angeles Co., from Peter Kiewit Sons Co., 345 Kiewaya Ave., Arcadia. $1,543,233. CD 8/30—ENR 9/5.

California—State Div. Hys., State Bldg., Los Angeles, Sept. 26, imprv. 0.7 mi. Los Angeles Co., from Matich Bros., P.O. Box 390, Colton. $70,700. CD 8/30—ENR 9/5.

Calif., Westwood—University of California, 405 Hilgard Ave., Los Angeles, rejected bids Sept. 20, changing and installing untilities in Arroyo Sect. campus of University of California. L. B. $75,000. Will readvertise. CD 9/26—ENR 10/3, under LB.

Delaware—State Hy. Dpt., Dover, Sept. 25, imprv. 9.137 mi. hy. Georgetown to Ellendale, Contr. 857, FAP 84 (2) Sussex Co., from Highway Constr. Co., 7 and T Sts. N. E., Wash., D. C. $382,136. CD 9/3—ENR 9/5.

Illinois—State Div. Hys., Springfield, Sept. 27, bituminous resurfacing 0.65 mi. in Mt. Vernon, Jefferson Co., from Arrow Petroleum Co., 7419 Franklin St., Forest Park. $45,003.

Ill., Chicago—City, Dpt. P. Wks., City Hall, Sept. 27, concrete paving Austin Ave., from W. Higgins to N. Elson Aves., from P. J. Crowley, 9011 S. May St., $130,162.

Ia., Mt. Pleasant—Bd. Supervs. Henry Co., rejected bids Aug. 1, grading 32.4 mi. secondary roads. CD 7/15—ENR 7/18.

†**Idaho**—Pub. Rds. Admin., Cascade Bldg., Portland, Ore., 4 mi. grading West Side Lake timber access road, Priest River, from Sather & Sons, P.O. Box 197, Spokane, Wash. $129,710.

Kansas—State Hy. Dpt., Eldorado, rejected bids Sept. 18, imprv. 7.176 mi. Butler Co. L. B. $34,445. CD 9/6—ENR 9/12.

Kentucky—Dpt. Hys., Frankfort, rejected bids Sept. 20, imprv. 2 mi. MP Group 22 (1946) Bell Co. L.B. $11,057; 1.476 mi. S.P. 37-345 Franklin Co. L.B. $10,674. CD 9/5—ENR 9/12.

Massachusetts — State-County-Town Chap. 90,100 Nashua St., Boston, received no bids Sept. 24, imprv. 2,890 ft. hy. Sherborn. CD 9/18.

Mass., Boston—City, City Hall Annex, Sept. 25, sheet asphalt paving Coleman St., from Edward M. Matz, Inc., Jamaica Plain. $69,542. CD 9/20.

Michigan—State Hy. Dpt., Lansing, Sept. 18, imprv. 1.113 mi. hy. M-56-11C-3 on M-20, Midland Co., from Midland Contg. Co., Midland. $83,615.

Michigan—State Hy. Dpt., Lansing, Sept. 19, imprv. 6.001 mi. S-62-43C-1 on Fremont-Hesperia Rd., Newaygo Co., from Joseph M. Hughes & Sons, 3333 Hudson St., Detroit, $50,859***5.758 mi. S-46-46-C-1 on Adrian-Tecumseh Rd., Lenawee Co., from H. Pickett, 409 Hubbard St., Allegan, $40,282***3.527 mi. S-1-19C-1 on County Rd., Glennie-Greenbuck Rd., Alcona Co., from W. H. Gilliland, Alpena, $68,489.

Minnesota—State Hy. Dpt., St. Paul, rejected bids Aug. 23, imprv. 14.6 mi. S.P. 5403-02 (TH 31-31) and S.P. 4401-03 (TH 31-31), S 356 (6) L.B. $147,076. CD 8/8—ENR 8/15.

Mississippi — State Hy. Comn., W. Spiva, dir., Jackson, rejected bids Oct. 1, imprv. 0.525 mi. Hinds Co., $40,000; 1.299 mi. Chickasaw Co., $100,000; 0.374 mi. Chickasaw Co., $50,000; 9.905 mi. Clarke Co. CD 9/20—ENR 9/26.

Mississippi — State Hy. Comm., Jackson, Oct. 1, imprv. 9.905 mi. Clarke Co., from A. A. Bush, Laurel, $141,963. Est. $150,000. CD 9/20—ENR 9/26.

†**Montana**—Pub. Rds. Admin., 342 P. O. Bldg., Missoula, Sept. 24, grading 9.4 mi. Lewis and Clark Hy., Lolo National Forest, Missoula Co., from S. Birch & Sons Constr. Co., Great Falls. $188,788. CD 9/9—ENR 9/12.

New Jersey—State Hy. Dpt., Trenton, Sept. 24, imprv. 1.741 mi. Gloucester Co., from Francis A. Canuso & Son, 804 S. 12 St., Phila., Pa. $767,896. CD 9/4—ENR 9/12.

New York — Bureau Contrs. & Accounts, Albany, received no bids Oct. 2, imprv. 0.35 mi. Ithaca-Newfield S. H. 5214 and Ithaca-West Danby, Fed. 1, S. H. 5379, Tompkins Co.; 0.44 mi. East Henrietta-Rochester S. H. 494; 2.86 mi. Lake Ontario State Parkway, (Hamlin Beach State Park, both Monroe Co.; 3.81 mi. West Point-Central Valley S. H. 5328, 5328 A and 5328 B, Orange Co.; 4.11 mi. Saw Mill River Parkway, (Chappaqua-Mt. Kisco), Westchester Co.; 1.01 mi. Annsville Bridge connection Bear Mountain bridge-east approach Peekskill, Annsville bridge S. H. 9297 S. H. 1850 Peekskill, Westchester Co. CD 9/17 ENR 9/19.

★**New York**—Bureau Contrs. & Accounts, Albany, Oct. 2, imprv. 5.82 mi. Ontario Thruway, Pittsford, Victor, S. H. 8223, Ontario Co., from S. J. Groves & Sons Co., 19 Rector, New York, $1,958,856, est. $2,038,000; 0.34 mi. Taconic State Parkway, (access drives Route 82), Dutchess Co., from Vito Gagliatdi, Croton-on-Hudson, $67,733, est. $54,000. CD 9/17—ENR 9/19.

North Carolina—State Hy. P. Wks. Comn., Raleigh, Sept. 26, imprv. 6.912 mi. Bladen Co., from F. D. Cline Constr. Co., Box 349, Raleigh, $84,608, est. $125,000-$150,000***7.859 mi. McDowell Co., from Suber & Co., Inc., Box 83, Whitmire, S. C., $141,381, est. $150,000-$175,000***3.703 mi. Rowan Co., from Propst Constr. Co., Inc., Concord, $48,616, est. $50,000-$75,000***5.798 mi. Union Co., and 4.564 mi. Haywood Co., from Dickerson Co., Box 391, Monroe, $130,434 and $108,439 respectively, est. $125,000-$150,000 each***3.122 mi. Stokes Co., from Winkleman Co. Inc., Southern Pines, $51,925, est. $50,000-$75,000***8.50 mi. Iredell Co., from E. W. Grannis Co., 1110¼ Hay St., Fayetteville, $74,065, est. $50,000-$75,000***6.387 mi. Hoke Co., from Zeigler-Cline Constr. Co., Box 356, Fayetteville, $80,714, est. $75,000-$100,000***5.458 mi. Surry Co., from B. D. Gentry Constr. Co., Box 349, Raleigh, $83,907, est. $75,000-$100,000. CD 9/16—ENR 9/19.

Ohio—State Hy. Dpt., Columbus, cancelled bids to have been opened Sept. 10, aggregate treatment resurfacing 32.14 mi. S.H. 555, 566, 793, Athens and Meigs Counties, $27,120; rejected bids Sept. 10, asphaltic concrete resurfacing 0.169 mi. Trumbull Co. L.B. $12,794. CD 8/29—ENR 9/5.

Ohio—State Hy. Dpt., Columbus, received no bids Sept. 24, widening, asphaltic concrete resurfacing 1.491 mi. S.H. 306 and 946, Williams Co. $29,200. CD 9/10—ENR 9/12.

Pennsylvania—State Hy. Dpt., Harrisburg, rejected bids Sept. 20 imprv. 6.283 ft. Cambria Co., L. B. $233,893. Will readvertise. CD 9/24—ENR 9/26.

★**Pennsylvania**—State Hy. Dpt. Harrisburg, Sept. 27, imprv. 1.19 mi. Jefferson Co., from Cornish & Dickerson, Uniontown, $326,856*** 5.98 mi. Butler Co., from County Constr. Co., Carnegie, $357,322***7.39 mi. Northhampton Co., from McMinns Industries, Inc., Lancaster, $317,423*** 6.63 mi. Susquehanna Co., from N. B. Putnam Co., Honesdale, $419,639. Received no bids Sept. 27 imprv. 1.53 mi. Cambria Co. CD 9/5—ENR 9/12.

Texas — State Hy. Comn., J. A. Redditt, chn., Austin, Sept. 24, grading, structures 14.441 mi. Hy. F.M. 93, S-361(2), Travis Co., from F. M. Reeves & Sons & Dean Skinner, P.O. Box 972, Austin. $214,628. A. R. Kelley, Austin, engr.

Tex., Bellville—City, W. Chatham, mayor, project postponed indefinitely street imprvs., asphaltic-concrete paving, concrete curb and gutters, base stabilization. $40,000. CD 9/3.

Tex., Corpus Christi—City, 34.4 mi. shell and caliche surfacing, and 34.5 mi. asphalt surfacing streets, from M-J Constr. Co., Beeville. $115,221. CD 6/20—ENR 7/11.

Tex., Fort Worth—W. O. Jones, acting city mgr., resurfacing 105,000 sq. yds. N. Main St. from Bluff St. to Marine Creek Bridge, from Texas Bithulithic Co., 4351 Valentine St., $82,425. Est. $80,000. C. M. Thelin, Fort Worth, acting dir. P. Wks. CD 9/11—ENR 9/19.

Tex., Houston — City, M. H. Westerman, secy., Sept. 23, paving 30 ft. 2 way width esplanade on Fannin St. from center line Old Main St., road to 2,552 ft. north, from Brown & Root, Inc., P. O. Box 3, $177,670.

Vermont—State Hy. Dpt., Montpelier, Sept. 27, 350 ft. rein.-con. sidewalk, curbing, guttering, retaining walls, etc., from Lambert Const. Co., Montpelier. $275,820.

Washington—State Hy. Dpt., Olympia, rejected bids Aug. 13, imprv. 0.3 mi. Cowlitz Co., L.B. $63,759. CD 8/19—ENR 8/22, under LB.

Washington—State Hy. Dpt., Olympia, Oct. 1, imprv. 19.9 mi. Jefferson Co., from Peter Kiewit Sons Co., 1403 W. 45 St., Seattle. $118,112. CD 9/18—ENR 9/26.

CONTRACTS AWARDED

California—Shasta Co. Courthouse, Redding, applying penetration oil treatment and seal coat on 9.2 mi. hy. between point approx. 11 mi. northeasterly of Palo Cedro and exten. 9.2 mi. easterly on Co. Hys. 13C and 29C, day labor. Over $40,000. No bids received Sept. 26. CD 9/20.

Fla., Pensacola—City, c/o City Mgr., paving, black top, curbing, etc., 77 streets to Smith Eng. Co., W. Pensacola St. Est. over $40,000. CD 9/25—ENR 10/17.

Georgia—State Hy. Dpt., Atlanta, to W. C. Shepherd Co., Inc., 2450 Briarcliff Rd., Atlanta, imprv. FAP 449 (5) Dekalb Co., $89,976; FAP 429 (6), Crisp and Turner Counties, $310,637; F 428 (5) and F 224 (2) Gordon Co., $167,782; S 223 (1) Jasper and Newton Counties, $118,657***to Stepp Eng. Co., Dalton, WPGH-FAGH 422 (5) Whitfield Co., $76,475 ***to Jack Smith, Atlanta, FAP 401 (2) Houston Co., $183,924***to S. J. Alexander, Inc., Thomasville, F-177 (5) McIntosh Co., $420,870***to Georgia-Alabama Co., Columbus, F-147 (4) Troup Co., $259,870***to Pittman Constr. Co., 537 Plaster Rd., Atlanta, F-119 (2) and F-331 (2), Pickens and Cherokee Counties, $500,723. Grand total $2,158,893. Bids 9/27. CD 9/20.

†**Idaho**—Pub. Rds. Admin., Redell Bldg., Portland, Ore., grading 6 mi. Bonner Co., to Morrison-Knudsen Co., Inc., 319 Bway., Boise, $163,114. Bids 9/24, CD 9/16; grading 14 mi. Glenwood-Eldorado Timber Access Road east of Kooskia, to A. Relyea & Sons, New Plymouth, $237,350.

Kansas—State Hy. Dpt., Minneapolis, imprv. 16.039 mi. S-61 (2) Ottawa Co., to Harry Henry, Ottawa, $46,426. Bids 9/10, awarded 9/25. CD 8/27—ENR 8/29.

Kansas—State Hy. Dpt., Wichita, grading 1.022 mi. S-204 (1), Sedgwick Co., to Stannard Const. Co., 428 N. Rock Island St., Wichita. $109,450. Bids 9/11, awarded 9/25. CD 9/5, under Wichita.

Kan., Caldwell—City, C. V. King, clk., street imprvs., to M. W. Watson, Natl. Bank of Topeka Bldg., Topeka. $72,779. Bids 9/18. H. R. Hunter, 105 W. English St., Wichita, engr.

Kan., Phillipsburg—City, imprv. streets, to Inland Constr. Co., 107 W. English St., Wichita. $31,365. Bids 9/12. Servus & Van Doren, 104 E. 8 St., Hays, engrs.

Kan., Salina—City, C. E. Baker, clk., street imprvs., to H. J. Taylor Const. Co., United Bldg. $123,856. H. F. Harper, city engr. Bids 9/16. CD 5/22—ENR 6/13.

Minn., St. Paul—City, W. E. Brennan, city purch. agt., repaving Como Ave., to Fielding & Shepley, 1258 Bohn Avenue, $67,994. Bids 9/10.

STREETS AND ROADS (Contracts Awarded, Cont'd.)

Mississippi—State Hy. Comn., Walter Spiva, dir., Jackson, grading, drainage structures, bituminous surfacing 15.13 mi. Scott-Beulah Hy., SP1-1503, Alternates 1, 2 and 3, Bolivar Co., to W. R. Aldrich & Co., Kalaruh University Gardens, Baton Rouge, La., **$130,719.** Est. $145,000. Bids 9/24. R. A. Harris, Jackson, engr.

Mississippi — State Hy. Comn., W. Spiva, dir., Jackson, imprv. 2.505 mi, Monroe Co., to Welborn Bros., 2200 Lamar Ave., Memphis, Tenn., **$61,077.** Bids 8/27. CD 8/19***11.007 mi. Amite, Lincoln and Pike Counties, to Cook Constr. Co., Standard Life Bldg., Jackson, **$257,072;** 12.566 mi. Smith and Jasper Counties, to Memphis Stone & Gravel Co., Exchange Bldg., Memphis, Tenn., **$300,281.** Bids 10/1. Grand total $618,430. CD 9/20—ENR 9/26.

N. J., Absecon—City, road paving, to Union Paving Co., Broad and Stiles Sts., Phila., Pa. **$53,927.** Awarded 9/20. Adams & Rehmann, 305 Central Ave., Hammonton, engrs.

★**New York**—Bureau Contracts & Accounts, Albany, reconstructing 7.57 mi. Albany and Schenectady Counties, to Fitzgerald Bros. Contracting Corp. and Cullanan Road Imprvt. Co., Troy. **$1,653,715.** Bids 8/21. CD 8/23—ENR 8/29, under LB.

Ohio—State Hy. Dpt., Columbus, imprv. 1.553 mi. Mahoning and Portage Counties and 1.25 mi. Trumbull Co., to W. A. Hodson, Highland, **$75,995** each, est. $90,000 and $111,550 respectively***0.655 mi. Cuyahoga Co., to William L. Schloss, Broadway and McCracken Rd., Cleveland, **$48,038,** est. $50,640***7.457 mi. Fairfield and Perry Counties, to F. H. Brewer Co., P.O. Box 40, Lancaster, **$64,396,** est. $64,700***1.948 mi. Noble Co., to H. W. Holt & Son, 998 W. Mound St., Columbus, **$61,584,** est. $72,100. Grand total **$326,008.** Bids 9/24. CD 9/10—ENR 9/12.

★**Oklahoma**—State Hy. Dpt., Oklahoma City, to Henryetta Constr. Co., Henryetta, grading, drainage 5.335 mi. State Hy. 51 west of Okeene, **$56,511,** est. $63,409; 6.128 mi. State Hy. 51, 5 mi. east of Canton, **$136,547,** est. $146,869; 4.275 mi. State Hy. 51, east of Canton, **$50,168,** est. $62,599, all foregoing Blaine Co.***to Oklahoma Constr. Co., Muskogee, grading, drainage, concrete paving 5.92 mi. US 70, east of Mannsville, **$221,221,** est. $243,733; grading, drainage, traffic bound surfacing 3.88 mi. north and east of Lebanon, **$102,774,** est. $115,165, both Marshall Co.*** to Amis Constr. Co., 1647 Exchange St., Oklahoma City, bituminous surfacing 4.168 mi. State Hy. 67, east of Drumwright, **$84,822,** est. $85,135, grading, structures minor culverts 4.168 mi. State Hy. 67, east of Drumwright, **$108,671,** est. $137,522; 4.581 mi. State Hy. 67, west of junction with U.S. 66, **$168,636,** est. $167,932, all foregoing Creek Co.***to J. Brisco, Box 188, Stillwater, grading, drainage, concrete paving 5.813 mi. State Hy. 10, U. S. 64, Noble Co., **$284,832,** est. $279,329***to Stone & Falls, Ada, grading, drainage, minor bridges 6.166 mi. county road beginning 10 mi. west of Marietta, Love Co., **$55,480,** est. $63,831*** from Oklahoma Bituminous Co., Chickasha, single bituminous surfacing county road beginning 10 mi. west of Marietta, Love Co., **$18,936,** est. $48,476***to Hunter Constr. Co., Ada, 2.428 mi. north and east of Ardmore, Carter Co., **$72,325,** est. $71,916. Grand total $1,350,670. Bids 9/24, awarded 9/25.

Okla., Tulsa—Tulsa Co., asphalt surfacing 4 mi. Peoria Ave., Skiatook, to Layman & Co., Riverside Dr., **$44,708,** est. $42,663; 4.25 mi. road from Creek Co. line to Liberty School, to Standard Paving Co., 2119 E. 11 St., **$53,251,** est. $53,395. Awarded 9/26. CD 5/9/45—ENR 5/17/45.

Pennsylvania—State Hy. Dpt., Harrisburg, rebuilding 6.36 mi. Venango Co., to Baldwin Bros. Paving Co., Union Commerce Bldg., Cleveland, O. **$743,148.** CD 9/17—ENR 9/19, under L.B.

Pennsylvania—State Hy. Dpt., Harrisburg, 28,809 ft. rein.-con. pavement, 5 rein.-con. bridges, exten. bridge and bituminous on crushed aggregate surfacing, Peoria Co., to C. W. Good, Inc., Lancaster, **$906,826.** Bids 9/6, awarded 9/26. CD 9/10—ENR 9/12, under LB.

Pennsylvania—State Hy. Dpt., Harrisburg, imprv. 5.46 mi. U. S. Route 422, west of Reading, Berks Co., to C. W. Good, Inc., Lancaster, **$906,826.** CD 8/7—ENR 8/15, under LB.

Washington — State Hy. Dpt., Olympia, imprv. 4.192 mi. Pierce Co., to Consolidated Constr. Co., 3102 N. 28 St., Tacoma. **$64,209.** Bids 10/1. CD 9/18—ENR 9/26.

Wash., South Bend—Pacific Co., Courthouse, regrading, realigning, resurfacing Bay Center Dike Rd., to C. W. Thomas & Son, Winlock. **$41,411.** F. R. Easterday, co. engr. CD 11/19—ENR 11/29.

Wash., Spokane—Spokane Co., Courthouse, imprv. Road 104, to D. A. Sullivan, Parkwater. **$63,502.** C. J. Chaffins, co. engr.

Wyoming—State Hy. Comm., Cheyenne, imprv. 8.297 mi. Sweetwater Co., to H. W. Read, 706 W. 19 St., Cheyenne. **$85,301.** Bids 9/26. W. Ainsley, Rock Springs, engr. CD 9/20.

Alberta — Province of Alberta, Edmonton, regraveling 40 mi. section Drumheller-Calgary Hy., to Standard Gravel & Surfacing Co. Ltd., Calgary. Est. **$100,000.** CD 12/3/43—ENR 12/9/43.

Ont., Toronto—City, R. H. Saunders, mayor, asphaltic concrete paving River St. from Queen to Gerrard Sts., to Kilmer, van Nostrand & Co. Ltd., 315 Eglinton Ave. W. **$83,655.** CD 8/19—ENR 8/22.

Que., Rimouski—Town, opening streets, day labor. About **$180,000.** CD 8/29—ENR 9/5.

EARTHWORK, WATERWAYS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 16

†**South Carolina**—U. S. Eng., Charleston, Intracoastal Waterway from Cape Fear River, N. C., to Winyah Bay, Serial 38-081-47-9.

British Columbia—Secty. Dpt. P. Wks., Ottawa, Ont., repairs and imprvs. to float and approaches and wharf repairs and float renewal. Bamfield West and Bamfield East. About $45,000. R. Blais, c/o owner, engr.

Que., Ruisseau Leblanc—Secy. Dpt. P. Wks., Ottawa, Ont., reconstructing breakwater. About $30,000. Plans deposit $25. R. Blais, c/o owner, engr.

Bids Asked October 18

La., New Orleans—Orleans Levee Dist., Civil Courts Bldg., 1,500 feet levee revetment, east bank Mississippi River, Orleans Parish.

Bids Asked October 21

†**Idaho and Colorado**—Bureau Reclamation, Dpt. Interior, Denver, Colo., furnishing, del. f.o.b. cars at shipping point or f.o.b. cars at Cascade, Idaho and Fort Collins, Colo., two high pressure-gate assemblies for installation in Outlet works of Cascade Dam, Boise Project, consisting two 5x5 ft. high-pressure gates, two 85,000 lb. hydraulic hoists, two hydraulic gate hangars, with 2 mercury-switch assemblies, etc. for installation in outlet works of Horsetooth Dam, Colorado Big-Thompson Project, Spec. 1487. CD 9/20—ENR 9/26.

Bids Asked October 23

New York—H. A. Cohen, dir. Bureau Contracts & Accounts, Dpt. P. Wks., Governor Alfred E. Smith State Office Bldg., Albany, beach protection (hydraulic fill) from Fire Island State Park to Ocean Beach in town of Islip, Suffolk Co. Plans deposit $5; adv. ENR 10/10.

Bids Asked October 24

†**Tex., Galveston**—U. S. Eng., Santa Fe Bldg., maintenance dredging approx. 5,525,000 cu. yd. $490,000. Inv. 41-243-47-112.

Bids Asked October 29

†**Virginia**—U. S. Eng., Norfolk, Va., bulkheads and revetment, Albemarle and Chesapeake Canal, Great Bridge, Norfolk Co., Inv. 44-110-47-30.

Bids Asked About November 1

Tex., Elsa—Hidalgo County Water Control & Imprvt. Dist. 6, and Engleman Gardens, c/o A. L. Cramer, drainage program. $74,000. A. Tamm, Harlingen, consult. engr. CD 6/20—ENR 7/11.

Bids Asked On or About November 20

†**Georgia**—U. S. Eng., 2301 Grant St., Mobile, 7, Ala., design, fabrication, testing and delivery f.o.b. destination of 5 main unit head gates and 2 service unit head gates with frames, guides, hoists and appurtenant equipment for Allatoona Dam, near Cartersville, Serial No. 01-076-47-53.

LOW BIDDERS

†**Michigan**—U. S. Eng., 428 Federal Bldg., Milwaukee, Zone 1, Wis., received no bids Aug. 1, removal, disposal approx. 4,500 cu. yd. place measurement of materials other than ledge rock from outer harbor and entrance channel at Leland Harbor, Serial No. 47-013-47-15. CD 7/23.

†**Washington**—Bureau Reclamation, Customhouse, Denver 2, Colo., Aug. 26, crest railing at Grand Coulee Dam, Columbia Basin Proj., Spec. 1419, from Columbia Electric & Mfg. Co., S. 123 St., Spokane. **$446,799.** W. R. Young, ch. engr. CD 8/27—ENR 8/29.

CONTRACTS AWARDED

Ark., Blytheville—Drainage Dist. 17, V. G. Holland, pres., excavating approx. 60,000 cu. yd. in clean-out work for Ditch 42, to Lee Knox Constr. Co., Cape Girardeau, Mo. 14.45c. per cu. yd. Bids 9/25. CD 9/18.

Fla., Miami—Dade Co., c/o Bd. Comrs., Miami, coastal salinity control structures on Military Canal, to Powell Bros. Const. Co., Ft. Lauderdale. **$29,473.** CD 11/9/44—ENR 11/30/44.

Miss., Jackson—Central Farmers Market Bd., Jackson, grading, drainage for Central Farmers Market, to Evans & Walters, Quitman. **$50,035.** Bids 9/18. CD 9/13—ENR 9/19.

†**Va., Petersburg**—U. S. Eng., Norfolk, raising Pocahontas levee along the Appomattox river near here, to G. P. Clay Co., 915 Green St., Richmond. **$40,000.** CD 7/10—ENR 7/18.

B. C., New Westminster—Dpt. P. Wks., Ottawa, Ont., channel protection, Kirkland Island, Fraser River, to Gilley Bros. Ltd., New Westminster. About **$58,000.** CD 8/21—ENR 8/29

Nova Scotia—Dpt. P. Wks., Ottawa, Ont., dredging at Robertsons Wharf at Port Mouton, and at Willow Cove Central Port Mouton, to J. P. Porter & Sons, Ltd., 1010 St. Catherine St. W., Montreal, Que. About **$77,350.** Bids 9/25. CD 9/20

N. S., Louisburg—Dominion Govt., Ottawa, Ont., dredging Louisburg Harbor. Owner builds **$65,000.**

Ont., Port Arthur—Dpt. P. Wks., Ottawa, rubble mound breakwater, to Canadian Dredge & Dock Co. Ltd., Harbor Comm. Bldg., Toronto **$331,600.** CD 9/9—ENR 9/12.

AIRPORTS & AIRBASES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 14

N. Y., Idlewild—ELECTRICAL SYSTEM, etc.—Comr. Marine and Aviation, Pier A, foot of Battery Pl., North River, New York, Zone 4, Contr. 2492 (revised), electrical, telephone and communications conduit systems at Municipal Airport, Idlewild, Contr. No. 29, (revised). Plans deposit $5. Downer, Green & Carrillo, 30 Rockefeller Plaza, New York, Zone 20, engrs.

Bids Asked October 16

†**Mo., St. Louis**—GLIDE PATH, etc.—Civil Aeronautics Admin., City Hall, Kansas City, 6, Mo., Proposal 5 P-47-100, I.L.S. glide path unit at Municipal Airport and erecting 20 x 20 ft. steel counterpoise at middle marker site, etc.

†**Tex., Randolph Field**—TAXIWAYS—Contracting Officer, AAF Pilot School, Randolph Field, asphaltic concrete taxiways. CD 9/26—ENR 10/3.

Bids Asked October 18

Tex., Brooks Field—RUNWAYS—U. S. Contracting Officer, AAF Base, Bldg. 36, sealing and resealing concrete runways. $40,000.

Bids Asked October 19

Mo., St. Louis—RUNWAY—Bd. Pub. Service, M. M. Kinsey, pres., 304 City Hall, 12 and Market Sts., Zone 3, 4,100 ft. rein.-con. runway, 200 ft. wide and connecting taxiway to be installed at Lambert-St. Louis Municipal Airport, Robertson, St. Louis Co. $972,000. G. Brown, 325 City Hall, ch. engr. Horner & Shifrin, Shell Bldg., 1221 Locust St., St. Louis 3, consult. engrs. CD 6/12/44—ENR 6/29/44.

LOW BIDDERS

Calif., Los Angeles—AIRPORT—City, City Hall, Sept. 30, addnl. terminal facilities in north part of municipal airport, from Peter Kiewit & Sons Co., Kiewaya Ave., Arcadia. **$496,879.** L. Aldrich, City Hall, engr.

Ill., Decatur — APRON PAVING — Illinois Dpt. Aeronautics, 503 S. 7 St., Springfield, rejected bids Sept. 24, apron paving. L.B. **$147,130.** CD 9/13—ENR 9/19.

Ill., Peoria—RUNWAYS—Illinois Dpt. Aeronautics, 503 S. 7 St., Springfield, rejected bids Sept. 24, widening 2 runways at Peoria Municipal Airport. L.B. **$98,346.** CD 9/13—ENR 9/19.

Okla., Oklahoma City—HANGAR, etc.—City, rejected bids Sept. 24 hangar and shop addn. at Will Rogers Airport. L.B. **$297,000.** CD 9/11—ENR 9/5.

CONTRACTS AWARDED

†**O., Cleveland**—TESTING LABORATORY—National Advisory Com. for Aeronautics, Cleveland Municipal Airport, rein.-con. control house at Sub-stations A and G, to R. Hanen Const. Co., 2646 N. Moreland Blvd., Shaker Heights. **$43,167.**

LATIN AMERICA

Brazil, Sao Paulo—Ypiranga Engenharia Industrial, S.A., c/o J. Duckworth, 11 Bway., New York, N. Y., cellophane and other packaging materials mfg. plant, to Miliprint, Inc., 431 W. Florida St., Milwaukee, Wis., U.S.A. Est. **$250,000.** Dr. R. C. Cattan, Sao Paulo, engr.

Chile—Republic of Chile, Santiago, electrification scheme, to Empresa Nacional de Electricidad, Santiago. Est. **500,000,000** pesos. Corporation de Fomento de la Produccion, Santiago, engr. CD 4/25—ENR 5/16.

Mexico, Ensenada—City, City Hall, rejected bids Sept. 23 4,800 ft. drainage canal, 40x202 ft., rein.-con. bridge, access roads on each side of canal, 2 rock jetties exten. 300 ft. into Todas Santos Bay. L.B. **$174,000.** Will readvertise. CD 9/12—ENR 9/19.

Mexico, Mexico City—La Omega, S.A., Racreo 177, Mexico, D.F., design and constr. factory, Cuchilla de la Noira, Oxchimilco, to Ing. Carlos Maier, San Juan de Letran 41, Mexico City. **$200,000.**

PUBLIC BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 15

Va., Bassett—Henry Co. School Bd., Martinsville, high school. $400,000. Plans deposit $10. Dixon & Norman, 1103 E. Main St., Richmond, archt. CD 11/20/45—ENR 12/27/45.

Bids Asked October 17

Miss., McComb—McComb Separate School Dist., c/o chn., 2 story, brick, concrete high school. $300,000. E. L. Malvaney, Millsaps Bldg., Jackson, archt.

N. C., Rocky Mount—City, J. R. Bennett, mayor, City Hall, power plant imprvs., boiler and turbine rooms addns., furnishing, installing fuel handling equip., furnishing structural steel and reinforcing steel. Plans deposit $20. W. C. Olsen, 5 Exchange Pl., Raleigh, engr. CD 9/13—ENR 10/3.

Bids Asked October 18

Miss., Hazelhurst—City, bldg. $300,000. R. D. Sanders, Hazelhurst, lessee. N. W. Overstreet, Jackson, archt. CD 4/1—ENR 6/13.

Bids Asked October 22

Calif., Inglewood—Centinela Valley Union High School Dist., 235 S. Grevillea St., 1 and part 3 story, shop, 235 S. Grevillea St. $240,-000. Plans deposit $25. H. L. Gogerty Organization, 3123 W. 8 St., Los Angeles, archt. CD 8/23—ENR 9/5.

Calif., Montebello — Montebello Unified School Dist., 2100 W. Cleveland St., 73 x 120 ft. science bldg., 65 x 175 ft. and 25 x 72 ft. administration bldg., 70 x 190 ft., domestic science bldg., 44 x 140 ft., and 24 x 80 ft. cafeteria bldg., 40 x 204 ft. shop, 33 x 80 ft. and 32 x 60 ft. music bldg., for high school, Agra St and Compton-Jabonería Rd., Bell Gardens. Over $500,000. Plans deposit $100. Marsh, Smith & Powell, 816 W. 5 St., Los Angeles, archts. CD 4/5/45—ENR 4/19/45.

Bids Asked October 23

N. C., Fayetteville—Cumberland Co. Bd. Educ., F. D. Byrd, secy., Fayetteville, general construction and electrical sys., negro school in Dist. 2. Plans deposit $25. W. H. Deitrick, 115 W. Morgan St., Raleigh, N. C.

Bids Asked October 29

N. Y., New York—New York City Housing Auth., 122 E. 42 St. Zone 17, general contract, heating, ventilating, electrical work and plumbing, Jacob Riis Houses, Proj. NYC 5-8 and Jacob Riis City Houses, Proj. NYC-3. Plans deposit $75, $74 returnable. Extended date. CD 9/16—ENR 9/19.

LOW BIDDERS

Ala., Decatur—Morgan Co. Bd. Educ., c/o chairman, school, from R. J. Allen, 3024 Ave. T., Birmingham. $228,963. CD 2/1—ENR 5/16.

Ark., Fordyce—Fordyce Special School Dist., Fordyce, rejected bids Aug. 23, school. Will readvertise. CD 8/30—ENR 9/5.

†**Colo., Denver**—Public Bldgs. Admin., 18 and F Sts., N. W., Wash., 25, D. C., Sept. 27, remodeling 6 bldgs., at Federal Center for Bureau Reclamation, from Mead & Mount Constr. Co., 422 Denver Natl. Bldg., Denver. $235,000. CD 910—ENR 9/12, under Wash., D. C.

Mo., St. Charles—Consolidated School Dist., 2, E. Tuepker, pres. and F. C. Hollenbeck, supt., R.F.D. 2, rejected bids Sept. 23, 1 story, ground floor, 39 x 122 ft., brick, concrete school, Hy. 94 and St. Peters Rd., St. Charles Co. E. T. Friton, 411 Security Bldg., 4 and Locust Sts., St. Louis, Zone 2, archt. CD 9/16.

★**Tenn., Knoxville**—University of Tennessee, boys dormitory, from Thompson & Street, Builders Bldg., Charlotte, N. C. $1,400,000. CD 8/26—ENR 8/29.

Tex., Odessa—Ector County Ind. School Dist., Odessa, school, from T. C. Bateson Constr. Co., 622 Irwin-Keasler Bldg., Dallas. $340,140. CD 9/17—ENR 9/19.

Wash., Stevens Pass—State Hy. Dpt., Transportation Bldg., Olympia, rejected bids Aug. 23, superintendent bldg., on maintenance site, Primary State Hy. 15. L.B. $21,350. C. B. Shain, state hy. dir. CD 8/13.

CONTRACTS AWARDED

†**Ga., Columbus**—U. S. Eng., 2301 Grant St., Mobile, Ala., converting 38 barracks at Ft. Benning into 152 family units to Williams Const Co., 1032 13 St. Est. $450,000.

†**Fla., Tallahassee**—Pub. Housing Auth., NHA., c/o C. L. Levy, Peachtree and Broad Sts., Atlanta, Ga., converting barracks at Dale Mabry Field into housing units for veterans attending Florida State College, to Paul H. Smith Constr. Co., 411 Woodmere Rd., Tampa. Est. $250,000.

Ill., Arlington Heights—School Dist. 214, Arlington Heights, 2 story, brick, concrete, steel high school addn., to Axel E. Johnson, 4041 N. Kilbourn St., Chicago***plumbing, to Fettes, Love & Sieben, 4105 N. Damen St., Chicago***electrical work to Wadeford Electric Co., 205 W. Wacker Dr., Chicago***heating, to Northwestern Heating & Plumbing Co., 1905 Greenleaf St., Evanston. Est. $250,000. Childs & Smith, 430 N. Michigan St., Chicago, archts.

Ia., Cascade—City, c/o Bd. Trustees, A. L. Bender, secy., light and power plant imprvs., inch Diesel generating unit 300 kw cap., engine, generator, exciter, auxiliaries, founds., piping and station wiring, etc., to Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago, Ill. $51,300. Bids 9/18. CD 8/29—ENR 9/5.

Mich., Plymouth—Detroit House of Correction, c/o Dpt. P. Wks., City Hall, brick, steel, concrete laundry, and service tunnel to carry piping between buildings at Detroit House of Correction, to W. E. Wood Co., 4649 Humbolt St., Detroit. $284,489 and $221,970 respectively. CD 8/6—ENR 8/22.

Miss., Houlka—Town, W. C. Stewart, mayor, 1 story, structural steel garment plant to Central Constr. Co., Philadelphia, Miss. $63,590. Awarded 9/17. CD 9/16—ENR 9/19, under LB.

N. Y., Long Island City—Dpt. P. Wks., Municipal Bldg., New York, Zone 7, general contract repair shop, 34 St. and Hunters Point Ave., to Gerace & Castagna, 11 W. 42 St., New York, Zone 18. $554,319. Bids 9/13. CD 9/17—ENR 9/26, under LB.

Wash., Seattle—Highline Public Schools 253 S. 152 St., Zone 88, general contract industrial arts bldg., to Lewis Constr. Co., 3447 4 Ave. S. $574,316. Bids 8/21. CD 8/28—ENR 9/5, under LB.

★**Man., Winnipeg**—Wartime Housing Ltd., 159 Bay St., Toronto, Ont., 300 addnl. houses to Bird Constr. Co. Ltd., 708 Confederated Life Bldg., Winnipeg. About $1,500,000. CD 9/10—ENR 9/12.

Ont., Hamilton—Bd. Governors Mount Hamilton Hospital, Mayor S. Laurence, chn., nurses home, swimming pool, etc., to W. H. Yates Constr. Co. Ltd., 400 Wellington St. W. $849,-916. Bids 9/16. Hutton & Sowter, 915 Pigott Bldg., archt. CD 9/9—ENR 9/12.

Ont., Port Arthur—Bd. Governors General Hospital, 6 story, 45x110 ft., rein.-con., steel hospital addn. to Claydon Constr. Ltd., 16 Victoria Blk., Fort William. About $275,000. H. J. Smith, 62 Charles St. E., Toronto, archt.

Que., Lauzon—Dominion Govt., Ottawa, Ont., power house, to J. A. Y. Bouchard, 12 Desy St., Quebec City. $477,000.

COMMERCIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked in October

Tex., Houston—Fred B. Cannata & B. C. Gibson, 2118 Sunset Blvd., masonry and rein.-con. theatre, air conditioning, etc., $250,000. Jack Corgan, 2008 Jackson St., Dallas, archt. Herman Blum, 1708½ Commerce St., Dallas, engr. CD 4/4—ENR 4/19.

Bids Asked October 14

Ont., Ottawa—Salvation Army, 1156 Wellington St., c/o Hazelgrove, Lithwick & Cameron, 53 Queen St., concrete, cinder block and steel hospital extens. About $250,000. CD 6/28—ENR 6/6.

Bids Asked October 22

La., New Orleans—Eye, Ear, Nose & Throat Hospital, 165 E.ks Pl., Isaac Stauffer Memorial Hospital addn. $450,000. Extended date. Favrot & Reed, Nola Bldg., archts. CD 9/16—ENR 9/19.

Bids Asked

★**Tex., Houston**—Southwestern Properties, R. W. Peckham, pres., 2141 Westheimer, dwellings, paving, sewers, water lines, Peckham Pl $1,635,000. CD 6/12—ENR 6/20.

SOON LETS CONTRACT

O., Cleveland—Mt. Sinai Hospital, Dr. H. L. Rockwood, 1800 E. 105 St., soon lets contract 1 story, 40x85 ft., brick, steel, concrete power house. $230,000. G. B. Mayer, Schofield Bldg., archt. CD 10/16/44—ENR 11/2/44.

Tex., San Antonio—Harry M. Highstone, 1019 San Pedro St., soon lets contract 30 frame, stucco dwellings, concrete slab fdns. $225,000.

LOW BIDDERS

Calif., Escondido—Escondido Valley Hospital Assn., Inc., c/o. C. D. Gray, 4 and Maple Sts., Sept. 27, 1 story, brick, concrete hospital, 550 E. Grant St., from Haddock Engineers, Ltd., 129 W. 2 St., Los Angeles. $272,100. Dixon & Cline, 1151 S. Broadway, Los Angeles, archts.

★**Pa., Allentown**—Allentown Hospital Assn., 1627 Chew St., rejected bids Sept. 10, hospital addn., alterations. $1,250,000. Robert Lange & James M. Everett, 12 N 6 St., Allentown, and Charles F. Neegaard, 41 E. 42 St., New York City, archts. CD 8/20—ENR 8/22.

Tex., Houston—J. Schumacher, M. Esperson Bldg., project abandoned community center. $225,000. Maurice J. Sullivan, 3901 Travis St., archt. CD 9/27/45—ENR 10/11/45.

CONTRACTS AWARDED

Ala., Birmingham—Woodland Homes, Inc., c/o W. Leach, Birmingham, 77 houses, to G. W. Klosterman, Fort Walton, Fla. Est. $300,-000. Miller, Martin & Lewis, Title Guaranty Bldg., archts.

Ala., Florence—Rogers Department Store, Inc., N. Court St., department store addn., alterations, to Forcum-James Co., Inc., 1489 Thomas Street, Memphis, Tenn. Est. over $200,000. Hulsey & Hall, 912 Sterick Bldg., Memphis, archts.

Ala., Tuscaloosa—John Leland, Tuscaloosa, 67 duplex bldgs., to Southeastern Mfg. Co., Tuscaloosa. Est. $670,000. CD 9/9—ENR 9/19.

Conn., Meriden—Derecktor Holding Corp., 9 W. Main St., 4 story, brick, steel business bldg. Owner builds. $225,000. B. H. Winston, 465 Lexington Ave., New York, N. Y., archt. CD 3/12—ENR 3/28.

Fla., Orlando—Central Florida Builders, Inc., c/o Chester Whitter, atty., Orlando, 25 concrete block houses in College Park Area, to Gabel Const. Co., Orlando. Est. $212,000.

★**Ga., Macon**—Macon Colored Homes Corp., Larkin Marshall, pres., Macon, 320 masonry houses for colored veterans, Miller Field Rd., own forces. $1,300,000.

Ky., Pikeville — **Methodist Hospital, Pikeville**, brick hospital, to F. K. Vauxhn Bldg. Co., 708 1st Nat'l Bank Bldg., Hamilton, O. Est. $200,000. Mueller, Hair, & Hetterich, Hamilton, O., archts.

Ill., Chicago—Owner, c/o Harmon L. Waterstone, 65 E. South Water St., remodeling 12 story and constructing 7 story, 30x100 ft. millinery center bldg. addn., to James McHugh Constr Co., 6449 S. South Park St.***plumbing and heating to Economy Plumbing & Heating Co., 1308 S. Pulaski St.***electrical work, to Continental Electric Constr. Co., 3540 N. Southport St. Est. $750,000. CD 8/1—ENR 8/8.

La., Shreveport—C. & F. Corp., c/o Frank Zuzak, pres., 406 Marshall St., 43 duplex frame bldgs., known as V. A. housing, own forces. $350,000. J. S. Schierer, 404½ Marshall St., archt.

Minn., Minneapolis—North American Life & Casualty Co., H. P. Skoglund, pres., 2222 Park Ave., fdns. for 4 story, bsmnt., 75x275 ft. office, 1 story, bsmnt., 62x120 ft. garage wing, rein.-con., granite, Hennepin Ave. and Groveland Terrace, to Pearson Brothers, 2202 Bryant Ave. S. $115,000. Total est. $700,000. CD 2/7—ENR 3/14.

Miss., Yazoo City—Herbert Hogue, Yazoo City, 40 brick houses, to The Grantham Const. Co., Yazoo City. Est. $250,000. E. Drummond, 1 Federal S. & L. Bldg., Jackson, archt.

Mo., Clayton (St. Louis, 5, P.O.)—St. Joseph Academy, Wydown and Big Bend Blvds., Clayton, St. Louis, Zone 5, 3 story, bsmnt., concrete, brick, steel, stone academy incl. auditorium, gymnasium, cafeteria, home economics and science departments, etc. Lindbergh and Litzsinger Rds., St. Louis County, to Michael J. Lawlor Contr. Co., 5432 Terry Ave., St. Louis, Zone 12. Est. over $300,000. Carroll & Dean, 457 N. Kingshighway, St. Louis, Zone 5, archts.

Mo., St. Louis County—R. W. Mestemacher et al, c/o R. W. Mestemacher, 5309 Easton Ave., St. Louis, Zone 12, 30 four and six family flats, brick, concrete blocks, rein.-con., Lillian Ave. and commercial bldg. to provide space for 10 shops on Lucas and Hunt Rd., in new 47 acre Alameda subdivision, St. Louis Co. incl. streets, sewers, etc. Owner builds. $210,000.

Mo., St. Louis—Walter E. Livengood, Inc., 7000 Watson Rd., Zone 9, 50 two and 3 story, brick, concrete, steel sash bldgs. providing living quarters for 500 families on 27 acre tract, Watson Rd., west of Des Peres Park, known as Tudor Hill and incl. bldg. addn. of Colonial architecture, winding streets, parks, playgrounds, parking areas to provide country village atmosphere, own forces. Over $500,000.

N. J., Delaware Twp. (Ellisburg P.O.)—George Aurnt, Jr., P.O. Box 149, Paoli, Pa., residential development, separate contracts. $878,000. David Sloit, 7060 Garrett Rd., Upper Darby, Pa. archt

N. C., High Point—Sheraton Hotel, High Point, 65-room hotel addn., to J. A. Jones Constr. Co., High Point. $215,000. CD 3/14—ENR 4/21.

O., Cleveland—2855 Hampton Co., F. Helfenbein, 2475 E 12th St., 41 suite, 3 story, bsmnt., 95x150 ft., brick, block, steel, apartment, 2860 E. 132 St., own forces. $100,000. Cutting & Circel, 4900 Euclid Ave. archts.

O., Cleveland—Ohio Bell Telephone Co., A. W. Bailey, 750 Huron Rd., 2 story, 100x160 ft., steel, stone top addn., to Michigan-Diamond Exchange, 7225 Hway. $290,000. Garfield, Harris, Robinson & Shafer, National City Bank Bldg., archts. CD 7/10—ENR 7/18.

Pa., Bala-Cynwyd—Hyman Bachman, Inc., Perry Bldg., Phila., duplex apartment development, separate contracts. $220,000. Jack Swerman, 1 W. 2 St., Chester, archt.

Pa., Chester—Aton Twp., Keystone Land Development Co., 8319 Pine St., Phila., residential development, separate contracts. $788,000. Reuben Heard, c/o owner, archt.

Pa., Conshohocken—Charles D. Podbielski, 231 E. Hector St., residential development, separate contracts. $350,000.

COMMERCIAL BLDGS. (Contracts Awarded, Cont'd.)

Pa., New Britain—Happ & Son, 114 N. Main St., Doylestown, residential development, separate contracts. Over **$205,000.**

Pa., Newtown Square—Edwin C. Prichard, Newtown Square, apartment development, separate contracts. **$250,000.** Karl F. Otto, 6910 Market St., Upper Darby, archt.

Pa., Oreland—Arthur V. Turner, Prospectville, residential development, separate contracts. Over **$205,000.**

Pa., Phila.—Congregational Emanuel, Rabbi Maxwell M. Farber, 1524 Champlost St., synagogue and community center, to Master Masons Constr. Co., 1619 W. Thompson St., over **$205,000.** Awarded 9/25. Sydney Jelinek, 926 Walnut St., archt.

Pa., Upper Darby—Raymond Facciolo, 3207 Brunswick Ave., Drexel Hill, residential development, Poplar Ave., separate contracts. **$220,000.**

Tenn., Chattanooga—Chattanooga Homes, Inc., c/o James R. Chamberlain, 706 Walnut St., 50 homes, to Ralph Cannon, Chattanooga. Est. **$250,000.**

Tex., Alamo Heights—St. Peters Church, 111 Barrilla St., Alamo Heights, school, to Walsh & Burney, 928 N. Flores St., San Antonio. Approx. **$210,000.** G. Willis, 603 American Hospital & Life Bldg., San Antonio, archt. CD 8/7—ENR 8/15.

Tex., Dallas—City Realty Co., 917 Rep. Bank Bldg., residential constr. Owner builds. **$225,000.**

Tex., Dallas—W. H. Cothrum & Co., 7051 Clayton St., 68 dwellings, own forces. **$325,000.** CD 8/29—ENR 9/19.

Tex., Dallas—Perkins Development Co., 4110 Crane St., Houston, 85 dwellings, own forces. Approx. **$340,000.** CD 9/11—ENR 9/19.

Tex., Fort Worth — WAREHOUSE — Elmer Wooldridge, 200 Houston St., 1 story, 160x500 ft., rein.-con. warehouse, Foch St. Owner builds. **$100,000.** Consolidated Architects and Engineers, Fort Worth National Bank Bldg., archts.

Tex., Houston—Mulberry Manor, Inc., H. M. Cohen & M. A. Silverman, 2310 Leeland St., 122 ranch-type residences. Owner builds. Approx. **$750,000.** Lloyd & Morgan, 2310 Leeland St., Houston, archts. CD 9/11—ENR 9/19.

Tex., San Marcos—H. Williamson & Assoc., San Marcos, 4 story hotel, to Gordon Fulcher, 2411 Scenic Dr., Austin, approx. **$300,000.** CD 9/25.

★**Wash., Mercer Island**—General Eng. Co., Inc., 725 Central Bldg., 3 and Columbia St., Seattle, Zone 4, 200 one story, bsmnt., frame homes, S.E. 86 and 40 Sts., day labor. **$1,900,000.** CD 5/17—ENR /23.

B. C., New Westminster—Housing Enterprises, Ltd., 535 Homer St., Vancouver, 1, 2 and 3-bed apartment units, to Dawson, Wade & Co. Ltd., 775 Clark Dr., Vancouver. About **$450,000.** CD 8/26—ENR 8/29.

Ont., Eastview—R. D. Chenier, 209 Montreal Rd., 60 homes, own forces. About **$420,000.**

Ont., Toronto—**Woodgreen United Church**, 789 Queen St. E., community center, Queen St. E., to Foundation Co. of Ontario, Ltd., 1158 Bay St. About **$400,000.** Mathers & Haldenby, 96 Bloor St. W., archts. CD 1/23—ENR 2/2.

Que., Quebec City—Bell Telephone Co. of Canada, Ltd., 1050 Beaver Hall Hill, Montreal, telephone exchange bldg., St. Cyrile and Holland Sts., to Magloire Cauchon, Ltd., 311 de la Salle Ave.. About **$210,000.** J. F. MacNab, c/o owner, archt.

INDUSTRIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 10

Calif., Redding—PLANT—J. A. Blume, structural engr., 68 Post St., San Francisco, 1 and 2 story, 80x181 ft., rein.-con. milk processing plant, incl. 28x28 ft. insulated milk storage room, air-conditioned drive-in soda fountain in front of plant with seating capacity of 100, and 8x122 ft. loading platform, for McColl's Ice Cream Co., 1620 Oregon St. $150,000. Peterson & Spackman, Balboa Bldg., San Francisco, archts. J. Gayner, Balboa Bldg., San Francisco, mechanical engr. C. A. Hill, Redding civil engr. CD 7/19—ENR 8/8.

Bids Asked October 24

Pa., Bridgeport—FACTORY—Beryl Price, archt., 1911 Pine St., Phila., factory addn., for Bridgeport Luggage Co., c/o archt. $55,000. CD 9/11—ENR 9/19.

Bids Asked in Spring

Idaho, Montpelier—PLANT—Idaho Creameries, Inc., 14 and Bannock Sts., Boise, 1 story, 100x125 ft., masonry cheese plant with steam heat. $70,000. Wayland & Fennel, Idaho Bldg., archts. CD 8/9—ENR 8/15.

Bids Asked

O., Cleveland — FACTORY, etc. — Ferbert-Schorndorfer Co., 12815 Elmwood Ave., 1, 2 and 3 story, brick, steel, concrete factory, office and laboratory addns. $105,000. CD 5/20—ENR 5/23.

Tex., Austin—TERMINAL—Sinclair Oil & Refining Co., Gulf Bldg., Houston, pipeline terminal. $300,000.

Tex., Houston—PLANT—Southern Acid & Sulphur Co., La Porte Rd., plant addn. $125,000.

Man., Winnipeg — FACTORY — Winnipeg Silver Plate Co., 261 Fort St., factory. About $65,000.

Ont., Toronto — FACTORY — Owner, c/o Bruce, Brown & Brisley, archts., 12 Bloor St., E., 1 story, bsmnt., 78x94 ft. steel factory, for A. E. Long Co. Ltd., 357 Gerrard St. E. About $64,000.

SOON LETS CONTRACT

Mich., Detroit — PLANT — Christian W. Brandt & Associates, archts., 1418 Woodward Ave., Royal Oak, soon lets contract brick, concrete, steel bldg. for metal stamping plant and office, for Hawthorne Metal Products Co., 13850 Hawthorne St., Detroit. $250,000.

N. J., Millville—MILL—Beryl Price, archt., 1911 Pine St., Phila., Pa., soon lets contract mill addn., for Millville Hosiery Mill, c/o archt. $55,000.

Pa., Phila.—INDUSTRIAL—Owner, c/o J. Linerd Conarro, archt., 1805 Walnut St., soon lets contract industrial bldg. addns., alterations. $100,000.

★**Tex., Dallas**—FACTORY or MILL—Southwest Building Products Co., Tower Petroleum Bldg., soon lets contract 65x460 ft. factory or felt production mill, $1,500,000; pump house $75,000; boiler plant $75,000. CD 8/8—ENR 8/22.

Ont., Kingston—GARAGE, etc—Storey & Ritchie, archts., 2048 Union Ave., Montreal, Que., soon lets contract 138x253 ft. garage and 58x117 ft. terminal bldg., rein.-con. brick for Colonial Coach Lines, 1188 Dorchester St. W., Montreal, Que. About $400,000. CD 4/12.

Que., Shawinigan Falls — LABORATORY, etc.—Shawinigan Water & Power Co., 107 Craig St. W., Montreal, soon lets contract 1 story, L-shaped, 95x170 ft. rein.-con. masonry laboratory, office and research plant bldg., Trudel St. About $120,000. T. W. Burge, 4059 Baconsfield Ave., Montreal, archt.

LOW BIDDERS

O., Cleveland — BUS TERMINAL — Greyhound Terminal of Cleveland, R. W. Budd, pres., 2600 Chester Ave., project in abeyance. 150x250 ft., granite, rein.-con. bus terminal, E. 13 St. and Chester Ave., providing docks for 20 coaches. W. S. Arrasmith & Richard Mackey, 1720 Euclid Ave., archt. CD 5/20.

CONTRACTS AWARDED

Ala., Birmingham — WAREHOUSE — Kraft Food Co., 500 W. Peshtigo St., Chicago, Ill., concrete, steel food storage warehouse, to Del. E. Webb Constr. Co., 75 E. Wacker Dr. Chicago, Ill. Est. **$200,000.** Olsen & Urbain, 75 E. Wacker St., Chicago, Ill, archts. CD 8/9—ENR 8/22.

Ia., Clinton—PLANT—Pillsbury Mills, 2 Ave. S. and 6 St., Minneapolis, Minn., soybean processing plant addn., to Jones, Hettelsater Constr. Co., 1012 Baltimore St., Kansas City, Mo. Approx. **$200,000.**

Ky., Louisville—WAREHOUSE—Kraft Food Co., 500 N. Peshtigo Ct., Chicago, Ill., concrete block food warehouse, to D. Del. E. Webb Constr. Co., 75 Wacker Dr., Chicago, Ill. Est. **$200,000.**

Ky. Louisville—FACTORY—Wood Mosaic Co., 500 Crittenden Dr., 100 x 240 ft., concrete, steel factory, to Hays & Nicoulin, 939 Franklin St. **$70,000.**

Md., Baltimore — WAREHOUSE — H. B. Davis Paint Co., Bayard and Swain Sts., 1 story, 120x176 ft., concrete and cinder block warehouse, to Davis Constr. Co., 320 W. 24 St. **$77,000.** CD 1/16—ENR 1/31.

★**Mo., Sugar Creek**—RESEARCH—Standard Oil Co., 910 S. Michigan Ave., Chicago, Ill., 1 story, brick, concrete, steel engineering, research bldg., 100 octane plant, cracking plant, etc., to Stone & Webster Corp., 33 S. Clark St., Chicago, Ill. Est. **$20,000,000,** incl. equip. Bids 7/19. CD 7/19—ENR 7/25.

★**N. Y., Buffalo**—WAREHOUSE, etc.—American Stores Co., and Donahy-Faxon Stores, Inc., 424 N. 19 St., Phila., Pa., brick, steel, rein.-con. super market, 1 story 400x500 ft. warehouse, 1 story, 462x684 office bldg., to Turner Constr. Co., 1500 Walnut St., Phila., Pa. **$1,250,000.** Ganteaume & McMullen, 99 Chauncy St., Boston, Mass., archts.

★**Ore., Portland**—PLANT—Oregonian Publishing Co., 537 S.W. 6 Ave., 4 story, bsmnt., 200x200 ft., rein.-con. publishing plant, to L. H. Hoffman, 715 S.W. Columbia St. Est. **$1,750,000.** P. Belluschi, 2040 S.W. Jefferson St., archt. W. Ginsberg, 331 Madison Ave., New York, N. Y., engr. CD 9/11/45—ENR 9/20/45.

Ore., Portland — SHOP — Consolidated Freightways, 2029 N. W. Quimby St., altering, enlarging building for truck and trailer maintenance, to Ross B. Hammond, 1241 N. Williams St., Est. **$65,000.** T. Burns & W. K. Bear, 3604 Broadway, Portland, assoc. archts.

S. C., Charleston—PLANT—The American Agricultural Chemical Co., 50 Church St., New York, brick, concrete steel sulphuric acid plant addn. Owner builds. **$60,000.**

★**Tex., Port Neches** — PLANT — Jefferson Chemical Co., Inc., Port Neches, chemical mfg. unit, to Lummus Co. & E. B. Badger & Sons Co., Port Neches, approx. **$9,000,000.** CD 3/4—ENR 3/7.

Tex., San Angelo—LUMBER YARD—W. Cameron & Co., 4 and N. Oak Sts., lumber yard. Owner builds. **$60,000.** Harry L. Spicer, Amicable Bldg., Waco, archt. CD 4/1.

UNCLASSIFIED

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked October 16

Man., Hecla—WHARF—Secy., Dpt. P. Wks. Ottawa, Ont., reconstructing wharf. About $50,000. Plans deposit $20. R. Blais, c/o owner, engr. CD 4/5—ENR 4/18.

Bids Asked October 17

Florida — TRANSMISSION LINES — Clay Electric Co-operatives, Inc., Keystone Heights, 32 mi. 33KV transmission line from Keystone Heights to Worthington Springs. A. P. Michaels, Orlando, engr.

Bids Asked October 23

N. S., Louisburg—WHARF—Secy. Dpt. P. Wks., Ottawa, Ont., wharf. About $75,000. Plans deposit $25. R. Blais, c/o owner, engr.

Bids Asked October 24

N. Y., New York—PARK BLDG. IMPROVEMENTS—Comr. Parks, at office Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., New York, Zone 21, reconstructing boiler plant in power house, near Webster Ave. and Bedford Park Blvd., New York Botanical Gardens, Bronx, Contr. X-2-846, altering power house; Contr. X-2-946 reconstructing boiler plant, Contr. X-2-1046, electrical work. Contr. X-2-1146, plumbing work, plans deposit $5 each for above contracts.

Bids Asked About November 1

Arkansas—RURAL ELECTRIC LINE—C. & L. Rural Electric Co-operative Corp., L. Thomasson, mgr., Star City, 265 mi. rural electric line extens. from lines in Cleveland, Lincoln, Jefferson, Bradley, Grant, Drew and Desha Counties. $363,000. Dickinson & White, 115 North Springs St., Little Rock, engrs. CD 1/9—ENR 1/24.

Bids Asked November 4

†**Arizona-Nevada**—TRANSMISSION LINE—Bureau Reclamation, Denver, Colo., 69 kva transmission line, Davis Dam Proj., western part of Arizona, Spec. 1491.

Bids Asked

N. J., Camden—ATHLETIC FIELD—Bd. Educ., City Hall, athletic field, grading, leveling, and excavating, Woodrow Wilson High School. Over $25,000. William T. Harker, 307 Market St., engr. CD 3/14—ENR 4/4.

Wis., Milwaukee—DOCK—A. F. Gallum & Sons Corp., 1818 N. Water St., Zone 2, 1010 lin. ft. steel sheeting dock along Milwaukee River, R. Phillipp, 756 N. Miwaukee St., Zone 2, archt.

LOW BIDDERS

†**Arizona-Nevada**—TRANSMISSION LINE—Bureau Reclamation, Denver, Colo., rejected bids Aug. 26, Phoenix-Tucson No. 2, 115 kva transmission line, Davis Dam Proj., southwest part of Arizona, Spec. 1415. CD 7/9—ENR 7/18.

Mo., St. Louis—AIRPORT IMPRVS.—City, M. M. Kinsey, pres. Bd. P. Serv., 304 City Hall, 12 and Market Sts., St. Louis, Zone 1. Oct. 1, Trunk Sewers B and C, Lines C-1 and C-3 at Lambert St. Louis Municipal Airport, St. Louis Co., from G. L. Tarlton Contg. Co., 5505 Dale Ave., Zone 10. **$512,000.** CD 9/9—ENR 9/12.

Wis., Milwaukee—TUNNEL—Blatz Brewing Co., 1120 N. Bway., received no bids Aug. 5, 1,200 ft. steel plate encased in concrete or rein.-con. conveyor tunnel, 250 ft. of which will be under Milwaukee River. De Leuw, Cather & Co., 20 N. Wacker Dr., Chicago, Ill., engr. CD 7/31—ENR 8/8.

CONTRACTS AWARDED

Alabama—TRANSMISSION LINE—Tombigbee Electric Co-operative, Inc., Guin, 55½ miles power lines, Lamar Co., from S. C. Irby, 815 S. State St., Jackson, Miss. **$617,310.** Bowman & Bowman, Box 518, Greenwood, Miss. engrs. CD 9/5—ENR 9/19.

Illinois—RURAL ELECTRIC LINES—Clinton County Electric Co-operative, Inc., J. H. Heimann, mgr., Breese, 66 mi. addnl. rural electric lines, Clinton Co., own forces. $135,000. Rural Line Engineers, 2 S. Central Ave., Clayton, St. Louis, 5, Mo., engrs. CD 9/9—ENR 9/19.

Kan., Wichita—RADIO STATION—Farmers & Bankers Life Ins. Co., 1 and Market Sts. Station KFBI, to C. Volmer Const. Co., 840 N. Main St. Est. **$250,000.** Overend & Boucher, Brown Bldg., archts.

Nebraska—TRANSMISSION LINES—McCook Public Power Dist., McCook, 283.73 mi. transmission lines in Red Willow, Hitchcock and Frontier Counties, to Crawford Electric Co., North Platte. **$226,294.** R. H. Reed, 2305¼ 13 St., Columbus, engr.

Neb., Grand Island—STADIUM—Bd. Educ., A. B. Newell, secy., 5 and Elm Sts., memorial athletic stadium, to Geer-Maurer Const. Co., 315 N. Oak St. **$81,541.** Meginnis & Schaumberg, 614 Federal Securities Bldg., Lincoln, archts. CD 8/27—ENR 8/29.

LAST MINUTE CONSTRUCTION REPORTS

WATER SUPPLY

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked October 14

Md., Towson—Comrs. Baltimore Co., Courthouse, installing watermains, Loch Raven. Plans deposit $5. D. Andrews, c/o owner, engr.

N. Y., Yonkers—Dpt. P. Wks., County Office Bldg., White Plains, repairing WW. CD 10/2/45—ENR 10/18/45.

Bids Asked October 21

Ont., Sudbury—City, W. S. Beaton, mayor, 500,000 imperial gal. elevated steel water tank. About $25,000. Gore & Storrie, 1130 Bay St., Toronto, engrs.

Bids Asked October 22

Tex., Baytown—W. H. Fortney, pres. Harris Co. W.C.I.D. 7, water imprvs., incl. water well and pumps, concrete reservoir, pump. facilities and water line extens. $60,000. J. J. Rady, 911 Insurance Bldg., Fort Worth, engr.

LOW BIDDERS

Tex., Hillsboro—City, S. L. Robertson, mayor, Sept. 24, drilling, casing, developing new water supply well, from Layne-Texas Co. Ltd., 1903 Elm St., Dallas, western location $31,060, eastern location $34,696. CD 9/17.

SEWERS, WASTE DISPOSAL

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked October 22

Tex., Austin— D. C. Greer, engr. State Hy. Comn., J. A. Redditt, chn., Austin, storm sewer, appurtenances from west of Dowling St. to approx. 200 ft. east of Kolfahl St. in Houston, W. J. Van London, Box 241, Houston, Zone 1, engr.

Bids Asked October 24

Ill., Chicago—Sanitary Dist. of Chicago, 910 S. Michigan Ave., approx. 16,700 lin. ft. concrete sewer of 5 ft. 8½ in. internal width and 9 ft. 4 in. internal height in tunnel or open cut in earth and rock, etc., Southwest Side Intercepting Sewer, Contr. 12, in Summit, Stickney and Lyons. Plans deposit $100.

LOW BIDDERS

Tex., Abilene—City, Oct. 1, sanitary sewer line from Roger Smith, Waco, $54,736. Est. $45,000. E. Yeatts, Abilene, engr.

Tex., Austin—City, G. Morgan, mgr., project abandoned sanitary sewer lines Waller Creek, 51 St. to Airport Blvd., Georgetown Rd., etc. Est. $65,000. Bids 7/16. CD 7/1.

CONTRACTS AWARDED

Mich., Marysville—City, vitrified and concrete sewers with brick, concrete manholes, to Fattors Constr. Co., Centerline. $100,996. Pate & Hirn, 532 Michigan Bldg., Detroit, engrs. CD 9/11.

Wis., Two Rivers—City, Sept. 30, sanitary and storm sewers, to Gray-Robinson Constr. Co., Manitowoc. $59,819. CD 9/24.

N. B., St. John—Parish of Simonds, St. John, sewerage sys., to Thomas Stephens, 11 Clarence St. Est. over $50,000. G. G. Murdoch, St. John, engr. CD 9/30/43—ENR 10/7/43.

Ont., Oshawa—City, F. E. Hare, clk., supplying, installing Nicholas Monohearth incinerator and 125 ft. chimney, to Francis Hawkin & Co., Ltd., 57 Bloor St. W., Toronto. About $75,000. Gibson & Pokorny, 991 Bay St., Toronto, archts., Meadows, Critoph & Co., 118 Richmond St. W., Toronto, engrs. CD 9/16—ENR 8/22.

Ont., Rockcliffe—Dominion Govt., Ottawa, outfall dume, reconstruction of drainage sys., to McLaughlin Bros., 120 Scott St., Ottawa. Est. $50,000.

BRIDGES

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked October 16

La., Thibodaux—Police Jury Lafourche Parish, Court House, State bridge over Bayou Lafourche between Raceland and Thibodaux, Project 713-00-22. Plans deposit $25, G. P. Rice, 324 Audubon Bldg., New Orleans, engr. CD 1/10/44—ENR 1/24/44.

Bids Asked October 18

Kansas—State Hy. Dpt., Great Bend, Br. 2.6, three 8x8x32 ft. rein.-con., FA 537F(1); Br. 3.9, four 10x6x32 ft., FA 537F(1); Br. 9.4, three 9x7x32 ft., FA 537F(1); Br. 9.6, four 9x6x32 ft., FA 537F(1); Br. 10.4, four 9x7x32 ft., FA 537F(1); Br. 10.7, five 10x8x32 ft. FA 537F(1); Br. 11.4, six 10x8x32 ft. FA 537F(1); Br. 12.7, four 10x6x32 ft., A 537F(1). Barton Co. R. C. Keeling, Topeka, engr.

Kansas—State Hy. Dpt., Larned, Br. 16.7, four 9x9x32 ft., rein.-con., Pawnee Co. R. C. Keeling, Topeka, engr.

Bids Asked October 22

Maryland—State Hy. Dpt., Baltimore, 909 ft. multiple steel I beam bridge over Tuckahoe Creek, on Easton-Denton Rd. at Caroline—Talbot Co. Line Contr. Co. 141-2-211, T-86-3-211, Caroline and Talbot Counties. Plans deposit $5.

Bids Asked October 28

Tex., Houston—Harris Co., Courthouse Bldg., heavy timber, concrete bridge over Cypress Creek, Grant Rd. $40,000. Hugo Zapp, co. engr.

LOW BIDDERS

Pennsylvania—State Hy. Dpt., Harrisburg, Oct. 4, bridges 0.24 mi. Bucks Co., from James McGraw Co., Commercial Trust Bldg., Phila., $131,748; 1.01 mi. Cambria Co., from Ferguson & Edmondson Co., Keystone Bldg., Pittsburgh, Zone 22, $284,757. CD 917—ENR 9/19.

Pennsylvania—State Hy. Dpt., Harrisburg, received no bids Oct. 4, 0.23 mi. concrete bridge, Tioga Co. CD 9/17—ENR 9/19.

CONTRACTS AWARDED

New York—H. A. Cohen, dir. Bureau Contr. & Accounts, The Governor Alfred E. Smith Office Bldg., Albany, concrete substructure for 2,144 ft. high level viaduct to carry North Hempstead Turnpike over Hempstead Harbor at Roslyn, Nassau Co., to Senior & Palmer, Inc., 50 Church St., New York. $545,990. Bids 9/4. CD 9/6—ENR 9/12 under LB.

STREETS AND ROADS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked October 14

D. C. Wash.—District Comrs., District Bldg., imprv. Reno Rd. N.W., from Quebec to Van Ness Sts. and from Yuma St. to Nebraska Ave.

Bids Asked October 15

D. C., Wash.—District Comrs., District Bldg., imprv. intersection Pennsylvania and Minnesota Aves. S.E.

Oklahoma—State Hy. Dpt., Oklahoma City, grading, drainage, surfacing 5.5 mi. hy. Dewey Co., $28,328; grading, drainage 5.3 mi. road, Dewey Co., $24,007; 5 mi. Harper Co., $23,087; concrete paving 6 mi. State Hy. 13, Pontotoc Co., $178,799; 6.5 mi. State Hy. 13, Pontotoc Co., $204,716. CD 9/14/45—ENR 9/27/45; grading, drainage 417 mi. road, Okmulgee Co., $16,370; grading, minor drainage structures 1.07 mi. U. S. Hy. 60, Washington Co., $107,756; 6.1 mi. U. S. Hy. 68, Atoka Co., $179,876***grading, drainage, 1 bridge 3.7 mi. State Hy. 89, Jefferson Co., $35,731; grading, drainage, gravel surfacing 4.6 mi. Jefferson Co., $48,482; grading, minor drainage structures 4.8 mi. Jefferson Co., $20,563; 4 mi. Jefferson Co. $22,130; grading, drainage 4.6 mi. Jefferson Co., $22,210. H. E. Bailey, Oklahoma City, engr.

Nebraska—Dpt. Road & Irrigation, Lincoln, gravel-sand and maintenance, Patrol 11011.21, Adams, Tecumseh and Cook; Patrol 11022, Beatrice—Daykin; Patrol 21008, Prague—Lincoln; Patrol 21023, Schuyler—Octavia; Patrol 21031, Kennard—Elkhorn; Patrol 21036, Gretna, Gretna Fish Hatchery; Patrol 31013, Wausa — Yankton Bridge; Patrol 31053, Broomfield—Hartington;; Patrol 41064, St. Paul—Clarks; Patrol 51021,23, Hemingford—Hay Springs; Patrol 51051, Scottsbluff—Hemingford; 71015,18 Broken Bow—Taylor. W. G. Scott, Lincoln, engr.

Bids Asked October 18

Kansas—State Hy. Dpt., Great Bend, grading 8.413 mi. FA 537F (1), Barton Co. R. C. Keeling, Topeka, engr.

Kansas—State Hy. Dpt., Larned, light type surfacing and grading 8.948 mi. F 583 (2); Stafford Co.; light type surfacing 10.24 mi. F 583 (1); grading 10.232 mi. F 583 (1), all foregoing Pawnee Co., R. C. Keeling, Topeka, engr.

Bids Asked October 22

Kansas—State Hy. Dpt., Elkhart, single asphalt surface treating 2.427 mi. FAS 465B (2); 3.264 mi. FAS 465A (2); grading 2.427 mi. FAS 465B (2); 3.264 mi. FAS 465 A (2), all foregoing Morton Co. R. C. Keeling, Topeka, hy engr.

New Jersey—State Hy. Dpt., Trenton, grading 1.8 mi. Route 82, Sect. 4A and 5, River Rd. (Clifton) to Route 2, (Rutherford) FAP F-186 (3) Passaic and Bergen Counties; 1.02 mi. Route 82, Sect. 4B, Passaic Ave. to River Rd., FAP F-186 (5) Passaic Co. Plans deposit $10.

Kan., Lincoln—Lincoln Co., light type surfacing 6.5 mi. S 227(1); 6.659 mi. S 227 (2); 3.998 mi. S 229 (2). Leonard Lay, Lincoln, engr.

LOW BIDDERS

N. J., Mercerville—Mercer Co., Court House, Trenton, paving and widening 4,600 ft. roadway from Mercerville toward Edinburg, from Agabiti Bros., 125 Swan St., Trenton, $63,697. Est. $66,869. H. Harris, Mercer Court House, Trenton, engr.

Pennsylvania—State Hy. Dpt., Harrisburg, Oct. 4, imprv. 0.41 mi. Blair Co. from S. G. Nowell, Hollidaysburg, $80,569***2.14 mi. Bradford Co., from A. B. Cole, Meshoppen, $262,794***2.83 mi. Bradford Co., from Brown, Davis & White, Lebanon, $207,423***1.69 mi. Bucks Co., from W. R. Croasdale, Pottstown, $97,907***2.06 mi. Butler Co., from Hull Resurfacing Co., Butler, $79,648***061 mi. Cambria Co., from L. R. Owen Co., Johnstown, $46,913***1.92 mi. Montgomery Co., from John F. Keelor, Perkiomenville, $447,941***1.25 mi. Washington Co., from Allegheny Asphalt & Paving Co., 411 Blvd. Allies, Pittsburgh, $165,440***0.13 mi. Westmoreland Co. from Weaver Constr. Co., Greensburg, $43,457***2.50 mi. Elk Co., from B. B. Constr. Co., Philipsburg, $397,129.

Pennsylvania—State Hy. Dpt., Harrisburg, received no bids Oct. 4, imprv. 0.23 mi. Pike Co.; 0.51 mi. Wayne Co.; 0.20 mi. Wayne Co., incl. I-beam and concrete bridges. CD 9/17—ENR 9/19.

Tex., Dallas—City, 8 ft. concrete paving 14 alleys, from Wayne Smith Co., 1812 Prairie St., approx. $40,000. CD 9/5—ENR 9/12.

Tex., Houston—City, asphalt paving Bowling Green, Natchez and Allegheny Sts., from Knutson Constr. Co., Commerce Building. Approx. $43,000.

Tex., Tahoka—Lynn Co., c/o Judge, Oct. 1, grading, drainage, flexible base and asphalt surfacing 18½ mi. farm to market roads, from Kerr & Middleton, Lubbock. $175,074. Est. $160,000. CD 9/10—ENR 9/12.

Tex., Tyler—City, J. G. Rollings, mgr., Oct. 1, street imprvs., grading, asphalt paving, etc., from Reynolds & Huff Constr. Co., Tyler. $179,567. Est. $100,000. CD 9/17—ENR 9/19.

Wisconsin—State Hy. Comn., Madison, rejected bids Sept. 24, imprv. 9.188 mi. Pattison State Park, Lake Nebagmon Rd., FASP S-791.0 (13). Contr. 1, Douglas Co. LB. $35,552. CD 9/9—ENR 9/12.

CONTRACTS AWARDED

Mo., Kansas City—City, H. H. King, dir. Pfl Wks., City Hall, paving, to Midwest Precote Co., 7600 E. 17 St. $70,840. CD 6/16/44—ENR 6/29/44.

Tex., Harlingen—City, asphalt and concrete paving, concrete curbing and guttering, to W. L. Pierson c/o Contractors Finance Corp., Harlingen. $175,167. CD 9/10—ENR 9/19, under LB.

Que., Quebec City—Municipality, F. Chouinard, clk., asphalt paving 3 streets, day labor. $75,000. Ed. Hamel, City Hall, engr. CD 8/12—ENR 8/22.

Saskatchewan—Province of Sanskatchewan, Regina, hardsurfacing various streets, day labor. $70,000.

EARTHWORK, WATERWAYS

Additional earlier Construction Reports will be found in the regular section.

LOW BIDDERS

Louisiana—Orleans Levee Dist., Room 200, Civil Court Bldg., New Orleans, 42,250 ft. earthen levees, east bank of Mississippi River in the Bohemia Spillway Plaquemine Parish, from Sternberg Dredging Co., Pere Marquette Bldg., New Orleans. $89,513.

CONTRACTS AWARDED

★**New York and New Jersey**—U. S. Eng., 120 Wall St., New York, Zone 5, N. Y., dredging approx. 116,000 cu. yd. place measurement incl. ledge rock and 41,300 cu. yd. place measurement of material other than ledge rock from New York and New Jersey Channels, Sect. 7, Rock Area 13, to Arundel Corp., Pier 2, Pratt St., Baltimore, Md. $1,282,424. Bids 7/31. CD 7/17—ENR 7/25.

AIRPORTS & AIRBASES

Bids Asked October 18

N. Y., Idlewild—LIGHTING CONDUIT SYSTEM—Comr. Marine & Aviation, Pier A, foot of Battery Pl., North River, New York, Zone 4, Contr. 2496, lighting and conduit sys. for Van Wyck Approach road at Municipal Airport at Idlewild, all incidental work, Contr. 33. Plans deposit $15. Downer, Green & Carrillo, 30 Rockefeller Plaza, New York 20, engrs.

PUBLIC BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked October 15

Ill., Broadview—School Dist. 92, C. B. Hatch, clk., 18 Ave. and 14 St., 2 story, 65x119 ft., brick, concrete, steel, school. $240,000. Perkins & Will, 309 W. Jackson Blvd., Chicago, archts.

Bids Asked October 16

†**N. Y., New York**—Federal Works Agency, Custom House, New York, Zone 4, repairing Post Office Annex, 33 St. and 9th Ave.

Bids Asked October 22

Alta., Lethbridge—Wartime Housing Ltd., 159 Bay St., Toronto, R. A. Newcombe, secy., 100 homes. About $500,000. CD 9/27—ENR 10/17.

Bids Asked October 23

N. Y., Thiells—Bureau Contracts & Accounts, Albany, shelter in courts of 8 infirmary bldgs. at Letchworth Village. Plans deposit $10. CD 7/11/45—ENR 7/26/45.

Bids Asked October 24

Ont., Leamington—Wartime Housing Ltd., 159 Bay St., Toronto, R. A. Newcombe, secy., 100 homes. About $500,000.

Bids Asked October 29

Ia., Grange City—City, c/o A. Hasselo, clk., municipal power plant. $104,000.

Bids Asked November 1

Mo., Hannibal—City, c/o Clerk, power plant imprvs. $50,000. Black & Veatch, 4706 Broadway, Kansas City, Mo., engrs.

LOW BIDDERS

★†**Colo., Grand Junction**—U. S. Eng., 1 and Douglas Sts. N.W., Wash. 25, D. C., Oct. 3, six story graduated down to three story, 36x391 ft. concrete main hospital bldg., also managers, nurses and attendants quarters, apartment, storehouse, station garage, boiler house, utility shop, laundry, incinerator bldgs., air conditioned and power plant, for Veterans Admin., Vermont Ave. between H and I Sts. N. W., Wash. 25, D. C., from Olson Constr. Co., 250 E. 1 St., Salt Lake City, Utah. **$3,463,269.** CD 9/3—ENR 9/5.

Ill., Aledo—Mercer Co., c/o Bd. Supervs., Courthouse, Aledo, rejected bids Sept. 10, 4 story, brick, concrete, steel hospital. $350,000. W. H. Schulzke, Moline, archt. CD 8/26—ENR 8/29.

Tex., Halfway (Plainview P.O.)—Rural High School Dist. 2, Bd. Educ., high school, from L. J. Vogel, 1223 Fannin St., Amarillo. **$245,000.** J. C. Berry, Kerr & Kerr, 312 B. W. 10 St., Amarillo, archt. CD 9/5—ENR 9/12.

Tex., Plainview—Rural High School Dist. 2, Halfway, F. Gilbert, secy., 1 story, brick, hollow tile, glass blocks school, from L. J. Vogel, Amarillo. **$245,800.** J. C. Berry & Kerr & Kerr, 312-18 W. 10 St., Amarillo, archt.

Wis., Marshfield—City, Water & Electric Dpt., Sept. 27, boiler room addn., from Thomsen-Abbott Constr. Co. **$189,755.** CD 5/23.

CONTRACTS AWARDED

Mich., Pontiac—State, Pontiac State Hospital, Pontiac, brick, steel, concrete women's infirmary, to Leo J. Nowicki, 307 Blvd. Bldg., Detroit. **$757,000.** CD 8/5/46—ENR 3/1/45.

Ont., Smiths Falls—Dpt. P. Wks., Toronto, preliminary work on Ontario Hospital, incl. 3 wings for male and 3 wings for female patients, central dining hall units for each, to Anglin-Norcross Ontario, Ltd., 57 Bloor St. W., Toronto. About **$200,000.** CD 9/13—ENR 9/19.

Ont., Toronto—East York Twp. Bd. Educ., P. M. Muir, bus. administrator, 2 story, 78x118 ft., brick, steel collegiate addn., Coxwell and Cosburn Aves., to Bennett-Pratt Ltd., 30 Bloor St. W. **$146,790.** Parrott, Tambling & Witmer, 57 Bloor St. W., archts. CD 3/18—ENR 6/13.

COMMERCIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

SOON LETS CONTRACT

N. Y., Poughkeepsie—Vassar Bros. Hospital, Lincoln Ave., soon lets contract hospital bldg. addn. York & Sawyer, 101 Park Ave., New York, Zone 17, archts. CD 9/19—ENR 9/26.

CONTRACTS AWARDED

Calif., Van Nuys—R. A. Eaton, 1612 N. Ontario St., Burbank, 48 frame, stucco, 6 room dwellings, Strathern St., Radford and Hinds Aves., to Warner S. Stokes, 2316 Burbank Blvd., Burbank. **$334,000.**

Ill., Chicago—Chicago Community Hospital, 2320 E. 93 St., general contr., 5 story, brick, concrete, steel hospital addn., to Paul Schwendener, 7553 S. Chicago St.***plumbing, to Charles Thumm Co., 4435 N. Damen St.*** heating, to Windsor Heating Co., 8723 Commercial Ave.***electrical work, to A. C. Skon Co., 670 N. Carpenter St. Est. **$600,000.** H. Frenzel, 127 N. Dearborn St., Chicago, archt.

Ill., Niles—Tom O'Shanter Country Club, Geo. S. May, pres., 840 N. Michigan St., Chicago, rebuilding 2 story brick, concrete steel club house, to J. T. Carp, 1791 W. Howard St., Chicago. Est. **$225,000.** Oliver Sandquist, 840 N. Michigan St., Chicago, archt.

Mich., Bay City—Sisters of Mercy, Bay City, brick, steel, concrete hospital addn., to Walter Butler Co., 1218 Maccabees Bldg., Detroit. Est. **$500,000.** Charles J. Sullivan, 2631 Woodward Ave., Detroit, archt.

Mo., St. Louis—St. Joseph Academy, Clayton, general contract high school, Lindbergh and Litzinger Rds., to M. J. Lawler, 5632 Terry St. Est. **$205,000.** Carrol & Dean, R. A. Long Bldg., Kansas City, Mo., archts.

Wis., Madison—Wisconsin Telephone Co., 722 N. Broadway, Milwaukee, Zone 2, 7 story, 72x116 ft., concrete, steel, brick central office bldg. addn., to J. H. Findorff & Son, 601 W. Wilson St. Est. **$600,000.** W. G. Herbst & Assoc., 1249 N. Franklin Pl., Milwaukee, archts.

Que., Montreal—Burrough Holding Ltd., c/o contractors, veterans housing, Stuart Ave. between Ball Ave. and St. Koch St., to Main Constr. Co. Ltd., 301 Jean Talon St. W. About **$370,000.** M. R. Roth, 204 Notre Dame St. W., archt.

INDUSTRIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked October 22

La., Gretna—REFINERY PLANT—Southern Cotton Oil Co., Gretna, modern 4 story refinery plant, Graham, Anderson, Probst & White, 80 E. Jackson St., Chicago, Ill., archts.

SOON LETS CONTRACT

Mo., Kansas City—Southwestern Bell Telephone Co., 11 and Oak Sts., soon lets contract, toll service bldg. $70,000. Neville & Sharp, Midland Theater Bldg., archts.

N. Y. Rensselaer—LABORATORY—Winthrop Chemical Co., Div. Bayer Co., Rensselaer, soon lets contract substructure for laboratory bldg. CD 9/30—ENR 10/3.

CONTRACTS AWARDED

Calif., Elk Grove—PLANT—Sperry Motor Co., Elk Grove, 60x108 ft. concrete block manufacturing plant with iron reinforcements, to Halverson & Son, Rt. 1, Box 2615. Est. **$55,000.**

Calif., Hawthorne — FACTORY — Cal-Lite Corp., c/o S. H. Brown, archt., 2412 W 7 St., Los Angeles, 85x330 ft., wood frame, corrugated iron factory, to J. P. Stein, 1542 Venice Blvd., Los Angeles. Approx. **$100,000.** CD 7/29—ENR 8/8.

Calif., Los Angeles—WAREHOUSE—Kraft Foods Co., 500 Peshtigo Ct., Chicago, Ill., rein.-con. warehouse, steel frame and roof decking at Eastern and Slauson Ave., to Del E. Webb Constr. Co., 5101 San Fernando Rd. Approx. **$340,000.** A. C. Martin & Associates, 333 S. Beaudry Ave., archt.

Calif., Los Angeles—MILL—Peterson Mfg. Co., 2626 E. 25 St., 2 story, 38x53 ft., rein.-con., brick mill, also 1 story, 59x95x27 ft. press bldg., steel, brick and corrugated asbestos siding, to Davies, Keusder & Brown, 4915 Exposition Blvd. **$97,000.** CD 8/15—ENR 8/22.

Conn., Waterbury—MILL—Scoville Mfg. Co., 99 Mill St., brick, steel, glass, concrete brass rolling mill addn., to Turner Constr. Co., 38 Newbury St., Boston, Mass. Est. over **$55,000.** H. L. Thompson, 99 Mill St., archt.

Del., Dover—COLD STORAGE—Richardson & Robbins Co., Dover, cold storage bldg. to William G. Mitten & Son, Dover. **$55,000.** Awarded 9/26.

Del., Wilmington — FACTORY — Delaware Barrel Co., Inc., 701 St. Market St., 2 story, 50x96 ft., concrete block factory, to D. M. Fontana Constr. Co. Inc., 112 9 St. **$55,000.** Awarded 9/27.

Fla., Ft. Lauderdale—WAREHOUSE—Broward Grain & Supply Co., 200 S.W. 23 St., fertilizer warehouse, to Ritter Const. Co., Ft. Lauderdale. Est. **$120,000.** CD 10/1.

Fla., Tampa—WAREHOUSE—Kraft Foods Co., 500 W. Peshtigo St., Chicago, Ill., concrete block warehouse for storage of foods, to Del E. Webb Const. Co., 75 E. Wacker Dr., Chicago, Ill. Est. **$200,000.** CD 6/6—ENR 6/27.

Mo., Kansas City—PLANT—Great Lakes Carbon Co., 333 N. Michigan Ave., Chicago, Ill., rock wool insulation plant, separate contracts. **$70,000.**

Mo., Kansas City—PLANT—Rutledge Oil Co., 1011 Burlington St., North Kansas City, general contract oil canning plant, 36 St. and Roanoke Rd., to Bennett Const. Co., 329 Westport Rd. Est. **$55,000.**

O., Cleveland—FACTORY—Republic Brass Co., 1623 E. 45 St., 1 story, 100x190 ft., brick, steel, glass block factory addn., to D. W. Rankin, 1836 Euclid Ave. Approx. **$75,000.** Christian, Schwartzenberg & Gaede, 1836 Euclid Ave., engrs.

Ore., Albany—TERMINAL—Walker's Truck & Trailer Service, 105 N. E. Oregon St., Portland, 1 story, 100x110 ft., concrete, frame truck terminal, to C. M. Corkum Constr. Co., 430 S. W. Harrison St., Portland. **$70,000.** L. A. Thomas, Postal Bldg., Portland, archt.

Pa., Burnham—PLANT—Baldwin Locomotive Works, Standard Steel Works Div., Burnham, two 1 story bldgs., 100x100 ft. and 75x100 ft. plant addns., to American Bridge Co., Broad St. Station Bldg., Phila. **$100,420.**

Pa., Chester — SALES and SERVICE — Al Warrington, 600 W. 7 St., 1 story, bsmt., 70x200 ft., concrete block, auto sales and service bldg., to Jacob Goldberg, 241 W. 9 St. **$75,000.** Awarded 9/25. Jack Swerman, 1 W 3 St., archt.

Pa., Phila.—MANUFACTURING—American Pulley Co., 4200 Wissohickon Ave., mfg. bldg. addns., to Barclay White Co., 22 N. N. 36 St. Over **$55,000.** Awarded 9/26. I. S. Towsley, 112 S. 16 St., engr.

S. C., Walhalla—PLANT—Walhalla Development Co., Walhalla, garment mfg. plant, to General Constr. Co., Palmetto Bldg., Columbia. **$150,000.** Associated Architects & Engineers, Lincoln Bldg., Marion, Va., archts. Cotton Blossom Brands, Pitchford Bldg., lessee. CD 8/22—ENR 9/19.

Tex., El Paso—PLANT—Frymuth Ice Cream Co., El Paso, ice cream mfg. plant, to J. E. Morgan & Sons, 210 N. Campbell St. **$55,000.**

Tex., Garland—PLANT—Sieberling Rubber Co., 345 15 St., Akron, O., completing Banbury Plant bldg., to T. C. Bateson Constr. Co., 622 Irwin-Keasler Bldg., Dallas. **$277,838.** CD 9/25.

Tex., Houston—SERVICE STATION—Pure Oil Co., M. Esperson Bldg., service station. Owner builds. **$65,000.** CD 8/22/45—ENR 9/6.

Tex., Houston—PLANT—Wyatt Metal & Boiler Works, Washington St. and Missouri, Kansas, Texas Ry. tracks, plant addn., to Tellepsen Constr. Co., 3900 Clay St. Approx. **$55,000.** Bids 4/30. CD 4/24—ENR 5/2.

Tex., Port Arthur—PLANT—Gulf Oil Corp., Port Arthur, refinery plant imprvs., expansion. Owner builds. Approx. **$475,000.** CD 9/12—ENR 9/19.

Tex., San Antonio—PLANT—Industrial Mfg. Co., 415 Carolina St., concrete, steel mfg. plant, day labor. **$55,000.** Bids about 10/7

Tex., Stinnett—COMPRESSOR UNITS—Texoma Natural Gas Co., Stinnett, rein.-con. fdns. for 5,200 hp. compressor units, to Midwestern Constructors, Stinnett, approx. **$88,000.**

Tex., Sunray—COMPRESSOR UNITS—Panhandle Eastern Pipe Line Co., Box 148, Stinnett, rein.-con. fdrs. for compressor units, to Midwestern Constructors, Sunray, **$95,000.**

Va., Richmond—PLANT—E. I. du Pont de Nemours & Co., du Pont Bldg., Wilmington, Del., sulphuric acid plant, to Leonard Constr. Co., 37 South Wabash Ave., Chicago, Ill. Over **$500,000.** CD 4/26—ENR 5/16.

Wash., Seattle—PLANT—The Texas Co., 135 E. 42 St., New York 17, N. Y., oil storage and distr. plant on Harbor Island, with facilities for tankers, tank cars and tank trucks, day labor. **$268,020.** CD 8/30/45—ENR 9/13/45.

Wis., Marshfield—FACTORY—Roddis Lumber & Veneer Co., Marshfield, 2 story, 60x180 ft., concrete block, frame factory addn., own forces. G. A. Krasin, Marshfield, archt.

Wis., Milwaukee—SHOP—Heil Co., 3000 W. Montana St., 1 story, 125x175 ft. concrete, steel, brick machine shop addn., to Klug & Smith Co., 111 E. Wisconsin Ave., Zone 1. Est. **$60,000.** R. Leary, c/o owner, engr. CD 6/13—ENR 6/20.

Wis., Milwaukee — DRY HOUSE — Blatz Brewing Co., 1120 N. Broadway, Zone 2, repairing brewery dry house, to Siesel Constr. Co., 514 E. Ogden Ave., Zone 2. Est. **$55,000.** H. N. Hermann, Enquirer Bldg., Cincinnati O., engr.

Wis., Milwaukee—FACTORY—Cutler Hammer, Inc., 315 W. 12 St., Zone 3, 1 story, 67x138 ft., steel, brick concrete block factory addn. to H. Schmitt & Son, Inc., 930 E. Burleigh St., Zone 12. Est. **$80,000.** Eschweiler & Eschweiler, 720 E. Mason St., Zone 1 archts.

Wis., Milwaukee — PRESSROOM — Milwaukee Sentinal, 123 W. Michigan St., Zone 1, remodeling press room, concrete, steel, to W. W. Oeffein, Inc., 5345 N. Hopkins St., Zone 9. Est. **$62,000.**

Wis., Oshkosh—WAREHOUSE, etc.—Johnson Bros. Co., 62 Algoma Blvd., 2 story, 64x110 ft. concrete, steel, brick, cookery warehouse and office bldg., to Fluor Bros. Constr. Co., 48 Otter St.

Wis., Sharon—FACTORY—Sta-Rite Products, Inc., Delavan, 1 story, 80x180 ft., concrete, steel, brick factory, to T. S. Willis, 324 Hayes Bldg., Janesville. Grassold & Johnson, 734 N. Jefferson St., Milwaukee, Zone 1, archts.

Wis., Wisconsin Rapids—FACTORY—Consolidated Water Power & Paper Co., Wisconsin Rapids, 1 story, 160x180 ft. steel, brick factory addn., concrete fdn., own forces. W. F. Thiele, chief engr.

Ont., Chatham—PLANT—Standard Brands Ltd., 1010 St. Catherine St. W., Montreal, Que., 1 story, steel, tile plant, to Anglin-Norcross Ontario, Ltd., 57 Bloor St. W., Toronto. About **$500,000.** S. Comber & Son, 1502 St. Catherine St. W., Montreal, Que., archts.

Ont., Peterborough—POWERHOUSE, etc.—Reverand Sisters of St. Joseph, powerhouse

INDUSTRIAL BLDGS. (Contracts Awarded, Cont'd.)

and laundry, to Pigott Constr. Co. Ltd., Pigott Bldg., Hamilton. Est. $150,000. E. J. Turcote, 1010 W. St. Catherine St., Montreal, Que., archt.

Ont., Port Hope—PLANT—Mathews Conveyor Co., Ltd., 215 John St., plant exten., to M. Sullivan & Son, Ltd., 234 Elgin St., Arnprior, about $100,000. Margison & Babcock, 137 Wellington St. W., Toronto, engr.

Ont., Toronto — FACTORY, etc. — Connor Bros., 170 Fairview Ave., 1 story, 50x100 ft., steel, concrete factory and workshop. Owner builds. About $55,000. Hanks & Irwin, 35 Old Mill Rd., archts.

Ont., Toronto—PLANT—McCall-Frontenac Oil Co. Ltd., Yardley Bldg., Harbor and York Sts., 3 story, 110x170 ft. rein.-con. grease and lubrication plant, Cherry and Commissioner Sts., to Foundation Co. of Ontario, Ltd., 1220 Bay St. About $430,000. G. W. Garvis, 360 James St. W., Montreal, Que., and G. F. Webster, Cherry St., engrs.

Ont., Toronto—GARAGE, etc.—W. A. McDowell Motors (Toronto) Ltd., 137 Ronces-valles Ave., 2 story, 130x130 ft., rein.-con., brick, structural glass garage and showroom, Bloor St. W., near Mosson Rd., to F. M. Deakin, 171 The Kingsway. About $150,000. Hanks & Irwin, 35 Old Mill Rd., archts. CD 9/25.

Ont., Toronto—PLANT—Abitibi Power & Paper Co. Ltd., 408 University Ave., 1 story, 117x119 ft., wings 36 ft. T-shaped rein.-con., masonry, steel plant addn., to Pigott Constr. Co. Ltd., Harbor Comn. Bldg. About $75,000. Marani & Morris, 46 Bloor St. W., archts.

Que., Chicoutimi—GARAGE—J. A. Gagnon, 164 Racine St., repairing altering garage, day labor. About $60,000.

Que., L'Assompton — FACTORY — LaCampagnie Bedard Ltd., E. Roy, pres., 168 St. Jacques St., 1 story, concrete, steel, concrete block factory, own forces. G. Jarry, 7074 Chambard St., archt.

Que., Montreal—WAREHOUSE—Railway & Eng. Specialties Ltd., 417 St. Peter St., warehouse, to L. G. Tarlton Ltd., 912 McEachran Ave., Outremont. Est. $60,000. H. J. Doran, Dominion Sq. Bldg., archt.

Que., Montreal—PLANT—Dominion Oilcloth & Linoleum Co. Ltd., 2300 St. Catherine St., W., 6 and 8 Story, 96x66 ft.x70 ft., rein.-con., steel, brick plant exten., to J. L. E. Price & Co. Ltd., 680 Sherbrooke St. W., about $400,000. O. R. Brunnel, c/o owner, engr. CD 6/18—ENR 7/4.

Que., Montreal — FACTORY — Diamond T Motor Trucks Montreal Ltd., 87 Prince St., factory, to Iodon Cornell, Inc., 4654 St. Catherine St. Est. $130,000. T. W. Burge, 4659 Beaconsfield St., archt.

★**Que., Mount Royal** — PLANT — Orange Crush, Ltd., 1016 Bleury St., Montreal, 1 and 2 story, 230x540 ft. bottling plant, Decaree Blvd. and Cote de Liesse Rd. to Anglin-Norcross, Quebec, Ltd., 892 Sherbrooke St W. About $1,000,000. G. D. Thompson, 2049 McGill College Ave., Montreal, archt.

★**Que., Sorel**—PLANT—Canadian Celanese Ltd., 1401 McGill College Ave., Montreal, plant to Marmie Industries, Ltd., 174 du Roi St., Sorel. About $1,000,000. H. R. Wigns, archt. and G. L. Wiggs & Co., engrs., both 1411 Crescent St., Montreal.

Que., Valleyfield — WAREHOUSE, etc. — Merck & Co. Ltd., 560 de Courcelles St., Montreal, 1 story, 76x91 ft. warehouse and 1 story, mezzanine, 50x146 ft. process bldg., concrete, steel, brick extens. at Grand Ile, near here, to Raphael Belanger, 47 Jacques Cartier St., about $85,000. T. Pringle & Son, Ltd., 485 McGill St., Montreal, engr. CD 12/28/44—ENR 1/4/45.

Que., Ville La Salle—WAREHOUSE, etc.—Dominion Tar & Chemical Ltd., 2240 Sun Life Bldg., Montreal, warehouse and specialty bldg., 3547 Allard St., to J. S. Henson, Ltd., 640 St. Catherine St. W., Montreal, about $250,000. C. H. Copeman, 1117 St. Catherine St. W., Montreal, archt.

Que., Quebec City — PLANT — Champlain Leather Co. Ltd., 51 Marie de L Incarnation St., remodeling plant, to Bergerville Estates Ltd., 111 Mountain Hill, Quebec City. Est $35,-000.

UNCLASSIFIED

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked October 16

Ill., Chicago—STREET LIGHT SYSTEM—City, Dpt. P. Wks., City Hall, exten. street light sys., incl. conduit lines, conduit line vaults, isolated vaults, others work performed in three areas—North, Central and South. Plans deposit $100. CD 4/25/45—ENR 5/3/45.

Bids Asked October 31

†**Va., Portsmouth-Norfolk** — SHIPYARD BUILDINGS—Yards & Docks Annex, Navy Dpt., Arlington building repairs, Marine Corps Barracks, Norfolk Naval Shipyard, Spec. 13033. Plans deposit $10.

Bids Asked January 10

Arkansas—ELECTRIC LINES—Craighead Electric Co-operative Corp., E. Walden, mgr., Jonesboro, 324 mi. rural electric lines serving 1,230 customers in Craighead Co., etc. $436,000. Tentative date. Southwest Electric Engineers, Jonesboro, Ill., engr. CD 10/2.

LOW BIDDERS

N. Y., Brooklyn—STATION FINISH—Bd. Transportation, 250 Hudson St., Zone 13, New York, Oct. 1, station finish for Euclid Ave. Station, Rte. 110, Sect. 10, from Federal Constr. Corp., 101 Park Ave., New York, Zone 17. Proposals (A) $291,903, (B) $289,628, (C) $319,958. CD 9/23—ENR 9/26.

CONTRACTS AWARDED

Alabama—TRANSMISSION LINE—Tombigbee Electric Co-operative, Inc., Guin, 555 miles power lines, Lamar Co., from S. C. Irby 815 S. State St. Jackson, Miss. $617,310. Bowman & Bowman, Box 518, Greenwood, Miss., engrs. CD 9/5—ENR 9/19.

Calif., Los Angeles—LIGHTING—Los Angeles Memorial Coliseum Comn., 3911 S. Figueroa St., furnishing, installing 6 structural steel lighting at Los Angeles Memorial Coliseum, to Pacific Iron & Steel, 11633 So. Alameda St. $56,244.

Colo., Nederland—DAM—Public Service Co. of Colo., 15 and Champa Sts., Denver, repairing upstream face of Barker Dam, to Intrusion Prepakt, Inc., Union Commerce Bldg., Cleveland, O. Est. $665,000. R. E. Davis, 3838 Santa Rita St., Berkeley, Calif., engr.

Mo., Jefferson City—SWIMMING POOL—State, Dpt. Revenue, Div. P. Bldg., c/o Wm. L. Smith, state purch. agt., 105 State Capitol, rejected bids Sept. 26, stone work, concrete columns, swimming pool, etc. of park on State Capitol Grounds CD 9/16—ENR 9/19.

Missouri — RURAL ELECTRIC LINES — Farmers Electric Co-operative, E. C. Wood, mgr., Chillicothe, 239 mi. rural electric lines, addnl. substation, tie lines serving Caldwell Co., own forces. $349,000. Frank Horton & Co., Lamar, engr. CD 8/19—ENR 9/5.

O., Cleveland Heights — GRADING, etc. — Cleveland Heights City School Dist., 1749 Lee Rd., rejected bids Aug. 9 grading, sewer, drainage work, fencing, plumbing, seeding and concrete work for grading, drainage for Hosford Athletic Field, Cedar and Lee Rds. Osborn Engr. Co., 7016 Euclid Ave., Cleveland, engr. CD 7/23—ENR 8/1.

Oklahoma—GAS PIPELINE—Cities Service Co., First National Bldg., Oklahoma City, 62 mi. 12 in. gas pipeline from Edmond to the Drumwright Oklahoma compressor station, to Ray Smith Constr. Co., El Dorado, Kan. Est. $900,000. Bids about 8/1, awarded 8/6. CD 7/8—ENR 7/25.

Oklahoma—OIL PIPELINE—Magnolia Pipe Line Co., Magnolia Bldg., Dallas, Tex., taking up and reclaiming 40 mi. 8 in. crude oil pipeline between Maud and Stonewall, to Bishop & Lock Constr. Co., Magnolia Bldg., Dallas, Tex. Approx. $48,000.

Oklahoma—TRANSMISSION LINE—Kiwash Electric Co-operative, Inc., Cordell, 117.5 mi. transmission line, to J. & J. Constr. Co., 1st National Bldg., Oklahoma City. $109,937. CD 11/3/45—ENR 12/13/45.

South Carolina — POWER LINES — Broad River Rural Electric Co-operative, Spartanburg, 77.5 mi. power lines in Spartanburg, Cherokee, and Union Counties, to Hardaway Contg. Co., 15-11 St., Columbus, Ga. Est. $75,000.

Texas—TRANSMISSION LINE GRUBBING, etc.—Sam Houston Electric Co-operative, Inc., Livingston, rejected bids Sept. 23 grubbing, clearing right-of-way for transmission lines, Lee Co. CD 9/17—ENR 9/19.

Texas—RURAL ELECTRIC LINES—H. P. McGaughy, pres., Upshur Co. Electric Co-operative, Gilmer, 225 mi. REA lines Upshur Co., to Walsh Constr. Corp., Cuero. $197,487. Est. $200,000. CD 9/25—ENR 10/3.

Texas—OIL PIPELINE—Shell Pipe Line Co., Shell Bldg., Houston, crude oil pipeline carrier, Harris Co. Owner builds. $65,000. CD 3/7—ENR 3/21.

Tex., Robstown—GOLF COURSE—Robstown Country Club, Robstown, design and construction 9 hole golf course, to G. A. Hoffman, 2720 S. Presa St., San Antonio. Approx. $46,000. Meyers & Noyes, Nixon Bldg., Corpus Christi, engrs. CD 9/11—ENR 9/19, under CA.

Tex., San Antonio—BROADCASTING STATION—Express Publishing Co., Alamo and 3 St., FM radio-broadcasting station, separate contracts. Approx. $50,000. CD 9/11.

B. C., Gibsons Landing—WHARF—Dpt. P. Wks., Ottawa, Ont., reconstructing wharf, to W. Greenlees, 500 Beatty St., Vancouver. About $61,000. CD 8/7—ENR 8/15.

B. C., Port Alberni—WHARF—Dpt. P. Wks., Ottawa, Ont., widening, exten assembly wharf, to British Columbia Bridge & Dredging Co. Ltd., 544 Howe St., Vancouver. $144,570. CD 9/18—ENR 9/26.

B. C., Victoria—WHARVES, etc.—J. H. Todd & Son Ltd., 1306 Wharf St., wharves and warehouse, to Todd Constr. Co., Vancouver. About $45,000.

Ont., Hamilton—RECREATION CENTER—Veterans Assn., 7 Depew St., recreation center, to Tope Constr. Co. Ltd., 677 Main St. Est. $150,000.

Que., Mechins—WHARF—Dpt. P. Wks., Ottawa, Ont., repairing, reconstructing wharf, to Leandre Thibault, Matane. About $60,000. CD 7/12—ENR 7/18.

PROPOSED PROJECTS

Including class of projects previously listed as *postwar*

COMMERCIAL BUILDINGS

PROPOSED WORK

★**Calif., Brawley**—Paul Grafe (Grafe-Callahan Constr. Co.), 714 W. Olympic St., Los Angeles, F. Marlow 6000 W. Manchester Ave., Los Angeles, L. Barker & P. Johnson, 650 S. Grand Ave., Los Angeles, A. A. Burnand, San Diego, and H. Baker, 470 E. Glenarm St., Pasadena, et al, plans by E. S. Williams, The Plaza, Palm Springs, resort city development, incl. hotel, golf course, polo grounds, airport, homes, known as Borrego Springs, Borrego Desert, 60 mi. northeast of here. $10,-000,000.

Calif., Coronado — Coronado Development Co., Coronado, plans 90% completed by L. L. Jones, 1548 W. 7 St., Los Angeles, 6 apartments, and 2 bungalows Coronado Island. $205,000.

Calif., Lodi—Lodi Memorial Hospital, 200 W. Pine St., plans by W. D. Peugh, 333 Montgomery St., San Francisco, concrete, steel, 100 bed memorial hospital. $600,000. Financing not provided.

Calif., Los Altos—C. A. Wilder & Son, Fremont St., Los Altos, plans under way 90 residences, east of Sunnyvale Ave. $450,000.

Conn., Bloomfield—Brooklawn Development Co., 68 Pratt St., Hartford, plans completed, 80 single frame houses, Bloomfield Ave. $500,000. Legal obstacles to overcome.

Conn., Hartford—Trinity College, Dr. G. K. Funston, pres., plans by O'Connor & Kilham, 101 Park Ave., New York, N. Y., dormitories, $450,000; library addn., administration bldg., field house, over $205,000. Financing not provided.

Conn., Milford—Milford Hospital, Inc., O. W. Platt, chn., plans by D. Orr, 96 Grove St., New Haven, 3 story, bamnt., brick, steel, concrete hospital. $500,000. Financing not provided. CD 8/15—ENR 8/22.

Conn., Norwich—Isadore Berkman, 17 Broad St., plans by A. Graham Creighton, 140 State St., New London, 3 story, bamnt., brick, steel, concrete theater, stores. $500,000. CD 11/29/44—ENR 12/14/44.

Conn., West Haven—Holy Cross Bros. of Notre Dame, Notre Dame University, South Bend, Ind., 3 story, bamnt., brick, steel, stone high school. $350,000.

Del., Dover—Dover Hotel Corp., c/o E. V. Keith, State and Lookerman Sts., plans by G. M. Whiteside, Dupont Bldg., hotel. $300,000. Financing provided.

Ind., Terre Haute — Central Presbyterian Church, 7 and Mulberry Sts., preliminary plans by W. E. Miller, 200 Opera House Bldg., 1 and 2 story, brick, stone, rein.-con., steel, church, auditorium, religious educational dpt., recreational room, etc. $200,000.

★**Ky., Lexington**—Southern Bell Telephone Co., 218 Church St., preliminary plans by Walter Scholer, 1114 State St., Lafayette, 4 story, bamnt., brick, stone, rein.-con. steel telephone exchange and office bldg. $1,000,000.

★**Md., Baltimore**—Owner, c/o John R. Forsythe, archt., 4222 Penhurst Ave., three hundred 1½ story, bamnt., brick, frame, detached residences. $2,100,000. Financing not provided.

Md., Baltimore—N. J. Sigler, c/o J. R. Forsythe, archt., 4222 Pennhurst Ave., preliminary plans 2 story, bamnt., 100x125 ft. brick, cinder block shopping center. $225,000. Financing provided.

Md., Baltimore—Walther Constr. Co., 114 E. Belvidere Ave., plans by Stanislaus Russell, 1508 Mt. Royal Ave., thirty-six 2 story, bamnt., 20x20 ft. brick, cinder block semi-detached residences. $300,000. Financing not provided.

Mass., Brookline—Temple Kehillah Israel, 334 Harvard St., plans by Krokyn, Browne & Rosenstein, 120 Milk St., Boston, 2 story, bamnt., brick, steel school, William St. $200,-000-$300,000.

Mass., Holyoke — Bd. Trustees, Holyoke Hospital, Beech St., plans by J. H. Ritchie & Assoc., 38 Newbury St., Boston, brick, concrete steel hospital addn., Beech St. Over $205,000. CD 9/19—ENR 10/3.

Mass., Lawrence—W. T. Grant Co., 1441 Bway., New York, N. Y., plans completed by P. A. Cunnius, 1441 Bway., New York, N. Y., 2 story, bamnt., brick, steel department store, Essex St. $225,000. Leland & Larsen, 20 Providence St., Boston, assoc. archt. CD 2/14—ENR 2/28.

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

Mass., Waltham—S. Goldman, 85 Devonshire St., Boston, plans by A. A. Minotti, 681 Main St., 2 story apartment, Stowe and Main Sts. $205,000. Financing provided.

Mass., Winchester — Winchester Hospital, Highland Ave., revised plans by J. H. Ritchie & Assoc., 38 Newbury St., Boston, 3 story, bsmnt., 45x150 ft., brick, steel hospital, Highland Ave. $300,000. Hayden Harding & Buchanan, 662 Park Square Bldg., Boston, consult. engrs.

Mich., Orchard Lake—St. Cyril & Methodius Seminary, Pontiac, administration bldg. and library. $500,000. Financing not provided.

Minn., Northfield—A. L. Roberts Hotel Co., Hotel Arthur, Rochester, plans by W. M. Ingemann and M. V. Bergstedt, 210 Anchor Bldg., St. Paul, 60 room hotel. Over $205,000. CD 7/31—ENR 8/15.

Minn., St. Paul—Central Lutheran School Committee of St. Paul, c/o A. G. Plagens, archt., 834 University Ave., school, N. Lexington Parkway and Englewood Ave. Over $205,000.

Minn., St. Paul—Hotel Lowry, S. J. Stats, 4 and Wabasha Sts., plans by Ellerbe & Co., 526 E 1 St., National Bank Bldg., altering and overhauling hotel. $500,000.

Mo., North Kansas City—Riff & Co., c/o L. L. Stearn, 124 W. 4 St., Kansas City, Mo., plans by Gentry & Voskamp, Midland Theatre Bldg., Kansas City, Mo., truck terminal. $210,000.

★**Mo., St. Louis**—May Department Stores Co., M. J. May, pres., c/o Famous-Barr Co., Railway Exchange Bldg., 601 Olive St., Zone 1, plans by Mauran, Russell, Crowell & Mulligardt, 1620 Chemical Bldg., 721 Olive St., Zone 1, 3 story, bsmnt., rein.-con., brick department store, Forsythe Blvd. near Jackson Ave., Clayton and University City, near here. $1,350,000. Financing provided. CD 8/13/45—ENR 8/23/45.

N. J., Lakewood—The Paul Kimball Hospital, Lakewood, plans by Raymond R. Chatfield, 324 W. Chelten Ave., Phila., Pa., hospital addn. $500,000. Financing not provided. James R. Mays, 324 W. Chelten Ave., Phila, Pa., consult. engr.

N. J., Mays Landing—Atlantic City Racing Assn., J. B. Kelly, pres., Schwehm Bldg., Atlantic City, hospital. Over $205,000. Financing provided.

N. J., Penns Grove—Italian Club, c/o Edwards & Green, archts., Bway. and Carmen Sts., Camden, club house. $220,000. Financing provided.

N. Y., Brooklyn—Ocean Constr. Corp., c/o S. L. Malkind, archt., 184 Joralemon St., Zone 2, plans completed 32 two story, 2 family houses, 54-80 Brighton Court and 2549-71 Ocean Parkway and 775-801 Avenue Z. $384,000. Financing provided.

★**N. Y., Eastchester**—**785 Park Ave. Realty Co.**, F. Morrell, pres., 205 E. 42 St., New York, Zone 17, plans under way apartment, Garth Rd. $5,000,000.

N. Y., Flushing—Garron Builders, Inc., c/o S. Paul & Associates, archt., 163-18 Jamaica Ave., Jamaica, plans completed 19 two story, 3 family houses, 76 Ave. and 147 St. $247,000. Financing provided.

★**N. Y., Flushing**—National Cancer Foundation, Julius Jay Perlmutter, pres., 450 7 Ave., New York, hospital for incurable cancer patients in vicinity Flushing Meadow Park, to be known as Hope Institute. $1,850,000. Financing not provided.

N. Y., Flushing—New York Telephone Co., 140 West St., New York, Zone 7, plans completed by Voorhies, Walker, Foley & Smith, 101 Park Ave., New York, Zone 17, altering telephone bldg., 137-34 Northern Blvd. $205,005.

N. Y., New York—Inwood Jewish Center & Talmud Torah, 66 Nagle Ave., Zone 34, synagogue and community center, Bogardus Pl. and Ellwood St. $250,000.

N. Y., Yonkers—St. Joseph's Seminary, Yonkers, plans by Eggers & Higgins, 542 5 Ave., New York, Zone 19, library. $750,000.

N. C., Greensboro—Presbyterian Synod of N. C., c/o Rev. H. R. McFadyen, Pinetops, old peoples home. Over $300,000. Site selected. Financing not provided.

N. C., Lenoir—Lenoir Mfg. Assn, Lenoir, 50 houses. $250,000. Financing provided, plans incomplete.

O., Akron—Pennsylvania R. R., D. L.Somerville, ch. engr., (Central Region), Penn. Station, Pittsburgh 22, Pa., and Baltimore & Ohio R. R., J. D. Moffat, ch. engr., Union Station, Chicago, Ill., plans completed Union Station, east side of main line tracks between Center and Carroll Sts., incl. escalator to track level, canopy full length of bldg. and 162 ft. concourse over tracks 30 ft. wide. Financing provided.

O., Bay Village—Catholic Diocese of Cleveland, Right Rev. E. F. Hoban, N.B.C. Bldg., Cleveland, church and school in St. Raphael's Parish, Rev. F. Zwilling, pastor, Wolfe and Dover Rds.

O., Cleveland—Central National Bank, 308 Euclid Ave., plans by Conrad, Hays, Simpson & Ruth, Hanna Bldg., 3 or 4 story, brick, stone, steel bank, Euclid and E 6 Sts. CD 12/16/44—ENR 1/20/44.

★**O., Toledo**—**New York Central Sys., E. A. Dougherty**, ch. engr. (west of Buffalo), LaSalle St. Station, Chicago, Zone 5, Ill., plans completed Union Station, 3 story, stairways to trains. $2,000,000. Financing provided.

★**Ore., Portland**—**Bank of California, F. Greenwood**, mgr., S. W. Broadway and W. Park St., bank. $1,000,000.

Ore., Portland—Fox Realty & Accounting Service, 516 S.W. 11, plans by R. A. Miller, c/o owner, 15 homes, Deardorf Rd. south of Foster Rd. $600,000. Financing provided.

Pa., Bridgeport—Coates-Wafer Post 840, American Legion, plans by J. Brinton Young, Roslyn, lodge bldg. addn. and exterior alterations. Over $205,000. Financing provided.

Pa., Hazleton—Most Precious Blood R. C. Church, 4th and Seybert Sts., plans under way school. $220,000. Financing provided.

Pa., Johnstown—Jewish Center of Johnstown, 4 Ave. and Wayne St., plans by Alexander Sharove, 601 Berger Bldg., 4 Ave. and Grant St., Pittsburgh, 2 story, bsmnt., 75x120 ft., steel, stone community house. $210,000.

Pa., Lancaster—First M. E. Church of Lancaster, Rev. Luther H. Ketels, pastor, Duke and Walnut Sts., rebuilding church. $500,000.

Pa., Lansdale—Loyal Order of Moose Lodge 1323, Lansdale, plans by J. B. Young, Roslyn, lodge addn. Over $205,000. Financing provided.

Pa., Lansdowne—St. Philomena's Church, Rev. A. Paul Lambert, rector, 41 E. Baltimore Ave., plans by Frank V. Nichole, 40 Albemarle Ave., convent. Over $205,000. Financing provided.

Pa., Melrose Park (Oak Lane, Phila. P.O.)—Owner, c/o T. Bromley Flood, 5904 N. Broad St., Phila., residential development. Over $500,000. Legal obstacles to be overcome. Financing provided.

Pa., Phila.—Melvin J. Fox, 1015 Chestnut St., plans by David Supowitz, 1015 Chestnut St., theater and store development. Over $205,000. Financing provided.

Pa., Phila.—J. S. Milner, 728 Sansom St., store. Over $205,000. Legal obstacles to be overcome.

★**Pa., Phila.** — Bd. Publications of The United Lutheran Church of America, 1228 Spruce St., plans by T. Norman Mansell, 262 S. 17 St., public bldg. and offices. $1,500,000. Financing provided. Charles H. Wolf, 112 S. 16 St., consult. engr. CD 2/21—ENR 2/28.

Pa., Pine Grove—St. John's Evangelical Lutheran Church, Rev. Lester M. Utz, 218 Main St., plans by T. Norman, Mansell, 262 S. 18 St., Phila., church. Over $205,000. Financing provided.

Pa., Washington—William Smith & Son, Main and Bean Sts., plans by Garey Dickson, 22 Main St., 3 story, bsmnt., 60x95 ft., brick, structural steel frame commercial bldg. and apartment. $210,000.

Pa., Williamsport—St. Pauls Evangelical Congregation, Rev. LeRoy Brininger, pastor, 1429 Memorial Ave., plans by George E. Savage, 1321 Walnut St., Phila., church and Sunday School. Over $205,000. Financing not provided.

R. I. Warwick—Our Lady of Providence Seminary, Warwick Neck, Warwick, 2 story, bsmnt., brick, steel, concrete dormitory. $225,000. Financing provided.

S. C., Greenville—Belk-Simpson Co., c/o W. D. Simpson, Greenville, concrete, steel department store addn. $500,000. Financing provided.

Tenn., Chattanooga—Lovemans, c/o R. L. Moore, Jr., pres., remodeling 4 story, brick department store. $300,000. Financing provided.

Tex., Dallas—St. Paul Hospital, 3121 Bryan St., plans by M. C. Kleuser & B. W. Lanum, 1918 Live Oak St., 5 story, 125 room masonry hospital. $400,000. Financing provided. CD 2/21/45—ENR 3/8/45.

★**Tex., Fort Worth**—Elmer Wooldridge, 200 Houston St., plans by Consolidated Architects & Engineers, Fort Worth National Bank Bldg., El Rio Shopping Village, W. 7 St. and Foch Blvd., incl. drug store, theater, super market, appliance store, department stores and service store, monolithic concrete, concrete fdns. $1,500,000. Financing provided.

Tex., Henderson—American Legion Memorial Hospital, Henderson, plans hospitals. $225,000. Financing not provided.

Tex., Houston—Rice Hotel, Main and Texas Sts., plans by K. Franzheim, 2306 Crawford St., remodeling 18 story hotel. $400,000. CD 9/26/45—ENR 10/4/45.

Tex., Houston—**Trinity Builders Inc., 4202 Roseland St.**, apartment. $225,000. Financing provided.

Tex., Kerrville—Schreiner Institute, Kerrville, biology, infirmary and recreation bldg. $225,000. Financing provided.

Vt., Montpelier—Vermont Junior College, College St., plans by Sturgis & Associates, Inc., 120 Boyleston St., Boston, Mass., dormitory, reception and dining hall. Over $205,000.

Vt., Newport—Sacred Heart Parish, Newport, plans by A. W. Inman, Clinton St., Plattsburg, N. Y., brick, steel high school, gymnasium and auditorium. $250,000. CD 9/23.

★**Wash., Seattle**—Modern Home Builders, Inc., 3849-34 Ave. W., 600 frame homes, W. Alaska and Hanford Sts., near Seattle park. $4,500,000.

Wash., Union—Alderbrook Inn Corp., Union, 30 room hotel, 11 cottages, golf course. $500,000.

Wis., Manitowoc—George V. Kapitz, Kewaunee, fifty 24x28 ft. and 24x32 ft. houses. $300,000.

Alta., Edmonton—Famous Players Canadian Corp., Royal Bank Bldg., Toronto, Ont., 100x100 ft. theater, Jasper Ave. $400,000.

★**Ont., Toronto**—Bank of Nova Scotia, 39 King St. W., plans by Mathers & Haldenby, 93 Bloor St. W., and Beck & Eadie, 220 Bloor St. W., 25 story, 125x190 ft. bank, King and Bay Sts. About $2,500,000.

Que., Montreal — Belhumeur & Leclaire, 2289 Champlain St., 3 apartment bldgs. $225,000.

Que., Montreal—The Credit Foncier, 5 E. St. James St., four 3 story concrete, brick apartment blocks, Cote des Neiges Rd. $225,000.

★**Que., Montreal East (Postal Dist. Montreal)**—Canadobe Constr. Co. Ltd., 7 St. Catherine St., 500 dwellings. $2,400,000.

Sask., Saskatoon—T. M. Ball, c/o Comr. Leslie, City Hall, 51 dwellings east of Clarence St. $275,000.

INDUSTRIAL BUILDINGS

PROPOSED WORK

★**Ala., Andalusia**—PLANT, etc.—Alabama Electric Co-operative, Andalusia, steam generating plant, 359 mi. 44 kva. line, substations. $6,000,000. Burns & McDonnell, 101 Linwood Blvd., Kansas City, Mo., consult. engrs.

★**California**—HYDRO-ELECTRIC PLANTS, ETC.—Pacific Gas & Electric Co., 245 Market St., San Francisco, plans under way, hydro-electric plant, North Fork, Mokelumne River, $15,930,000; hydro-electric plant West Point Powerhouse, $4,000,000; hydro-electric plant, Mokelumne Sys., Bear River Powerhouse; generating plant near Bakersfield Kern Steam Plant, $12,890,000; imprv. Pit 1 Powerhouse (Pit River) regulating facilities, $940,000; installing addnl. facilities, Sta. B, Eu- $478,000; 9,500 acre ft. storage capacity Salt Springs Reservoir on Mokelumne River, $330,000.

Calif., Los Angeles—GARAGE—Coulter Drygoods Co., 5600 Wilshire Blvd., plans 25% completed by Stiles Clements, Van Nuys Bldg., 2-level subterannean garage, surface parking area. $205,000.

Calif., Los Angeles—PLANT—Pacific Guano Co., 4522 Worth St., plans completed replacing wood frame bldg. with 130x230 ft. steel plant, 4522 Worth St. $100,000. Financing provided. H. M. ONeil Co., 610 16 St., Oakland, structural engr. H. S. Howard, 258 Monte Vista Ave., Oakland, industrial engr.

Calif., Oakland—PLANT—General Electric Co., 5411 E. 14 St., magnet wire cable and lamp ballast mfg. plant. $131,000.

Calif., Oakland—PLANT—John Morrell Co., 364 2 St., plans under way, 2 story, 100 x 175 x 200 ft., brick, rein.-con. meat packing plant. $350,000.

Calif., Roseville—PLANT, ETC.—Lincoln Packing Co., 1 St., Lincoln, plans by F. J. Ward & J. S. Bolles, 369 Pine St., San Francisco, 1 and part 2 story, 240 x 360 ft. cement block, steel cannery plant, 60 x 150 ft. warehouse. $750,000.

Conn., Waterbury—PLANT—Southern New England Ice Co., 216 Hamilton St., Hartford, plans by K. S. Heine, 238 Palm St., Hartford, 3 story, rein.-con. storage plant, 2 story, office, oil tanks, platform. $150,000. Financing provided.

Conn., Westport — FACTORY — Kellems Products Co., Saugatuck, plans by L. F. Caproni, 1221 Chapel St., New Haven, 2 story, 100 x 125 ft., brick, steel, factory. $150,000. Financing provided. CD 8/1/45—ENR 8/2/45.

★**Ind., Centerton** — PLANT — Indianapolis Power & Light Co., H. T. Pritchard, pres., Electric Bldg., Indianapolis, preliminary plans 1 story, bsmnt., brick, rein.-con., 40,000 kva. generating plant, steam boiler, 132,000 volt transmission line, steel towers. $7,000,000. Turbo-generator, awarded to General Electric Co., River Rd., Schenectady, N. Y. Gibbs & Hill, 450 7 Ave., New York, N. Y., consult. engrs.

★**Md., Sparrows Point**—POWER STATION PLANT—Bethlehem Steel Co., Bethlehem, Pa., preliminary plans by United Engineers & Contractors, Inc., consult. engr. and archt., 1401 Arch St., Phila., Pa., power station plant. $15,000,000. Financing provided.

Mich., Cheboygan—PAPER MILL—Paper Corporation of America, Cheboygan, brick, steel, concrete paper mill addn. $300,000.

Proposal Advertisements see pp. 29 to 30

OFFICIAL PROPOSALS

RATE: THE RATE FOR OFFICIAL PROPOSAL ADVERTISING IS 65 CENTS PER LINE (OR FRACTION) PER INSERTION

COPY RECEIVED UP TO 3:00 P. M. MONDAY FOR ISSUE OUT THURSDAY SUBJECT TO SPACE OPEN FOR LAST MINUTE ADS

SEND COPY TO OFFICIAL PROPOSAL DIVISION, ENGINEERING NEWS-RECORD, 330 W. 42ND ST., NEW YORK 18, N. Y.

Bids: Oct. 22 (279)

State Highway Work

STATE OF NEW JERSEY
STATE HIGHWAY DEPARTMENT
TRENTON

NOTICE IS HEREBY GIVEN that sealed bids will be received by the State Highway Commissioner for the following:

ROUTE S3, SECTIONS 4A and 5
(GRADING)

Construction of Route S3, Sections 4A and 5 (Grading), River Road (Clifton) to Route 2 (Rutherford). Passaic and Bergen Counties, length 1.8 miles. Federal Aid Project F-186 (3).

Estimated:

380,916	cu. yds.	Earth Excavation
155,060	" "	Rock Excavation
23,506	" "	Borrow Excavation
19,774	" "	Porous Fill
21,666	sq. yds.	Macadam Base Course
3,886	" "	Mod. Penetration Course
17,780	" "	Penetration Macadam Course
398	tons	Bit. Conc. Surface, Type CA-BC-1
3,063	sq. yds.	Reinforced Concrete Surface
22,000	lin. ft.	Pipe Construction—6" to 42" diam.
10,600	" "	White Concrete Curb
408	cu. yds.	Concrete Retaining Walls

ROUTE S3, SECTION 4B (GRADING)

Construction of Route S3, Section 4B (Grading), Passaic Avenue to River Road, City of Clifton, Passaic County, length 1.02 miles. Federal Aid Project F-186 (5).

Estimated:

52,758	cu. yds.	Earth Excavation
36,100	" "	Rock Excavation
3,055	sq. yds.	Pavement Excavation
352,620	cu. yds.	Borrow Excavation
10,030	" "	Porous Fill
3,225	sq. yds.	Concrete Base Course
3,225	" "	2" Pavement, Type CA-BC-1
10,600	lin. ft.	Pipe Construction, 6" to 48" diam.
2,888	cu. yds.	Concrete in Bridges
350,500	lbs.	Reinforcement Steel in Bridges

(NOTE: Bids will be received for the above two projects separately and/or for the entire work of both projects.)

Bids for the above will be received at the office of the State Highway Department, Room 102, State House Annex, Trenton, N. J., on Tuesday, October 22, 1946, at eleven A.M. *Eastern Standard Time*, and will be opened and read immediately thereafter.

The receipt and opening of bids is subject to the proper qualification of the bidder in accordance with the provisions of the prequalification law and the regulations adopted by the State Highway Commissioner. Bidders must also submit a revised financial statement and statement of plant and equipment with their bid.

NOTE: The proposed project is a "Federal Aid Project" authorized by the provisions of Title 27 of the Revised Statutes of New Jersey and supplements, and by Sections 2, 3, and 4, P. S. 521, 78th Congress, and is to be performed in accordance with the special provisions and requirements of the Federal Works Agency, Public Roads Administration, as outlined in the specifications, which provisions require that labor be employed from lists furnished by the U. S. Employment Service, 58 Union Avenue, Clifton, N. J. The attention of bidders is directed to the special provisions covering subletting or assigning the contract and to the use of domestic materials. The minimum wage paid to all unskilled labor employed on this contract shall be 65c. per hour. The minimum wage paid to all intermediate grade of labor employed on this contract shall be 75c. per hour. The minimum wage paid to all skilled labor employed on this contract shall be $1.25 per hour.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and may be inspected by prospective bidders during office hours. Plans will be furnished on a deposit of Ten Dollars ($10.00) for each set of plans upon application to A. Lee Grover, Chief Clerk, State Highway Department, Room 102, State House Annex, Trenton, N. J. Bids must be made upon the standard proposal forms in the manner designated in the standard State Highway specifications and must be enclosed in sealed special addressed envelopes bearing the name and address of the bidder and work bid upon on the outside. Each proposal must be accompanied by a certified check drawn to the order of the Treasurer of the State of New Jersey for not less than ten percent (10%) of the amount of the bid, provided that the said certified check shall not be less than $500.00 nor more than $20,000.00 and must be delivered at the above place on or before the hour named. Copies of the standard proposal forms and special addressed envelopes will be furnished on application. Bids not enclosed in sealed special addressed envelopes will be considered informal and will not be opened. The right is reserved to reject any or all bids.

Signed: Spencer Miller, Jr.
State Highway Commissioner

Bids: October 24, 1946 (283)

Southwest Side Intercepting Sewer

THE SANITARY DISTRICT OF CHICAGO
SOUTHWEST SIDE INTERCEPTING SEWER, CONTRACT NO. 12

TO CONTRACTORS:

Sealed proposals, endorsed "PROPOSAL FOR SOUTHWEST SIDE INTERCEPTING SEWER, CONTRACT 12," will be received by the Clerk of The Sanitary District of Chicago at the office of said Sanitary District, Room 600, 910 South Michigan Avenue, Chicago, Illinois, until 1:30 P.M., Central Standard Time, on Thursday, October 24, 1946, and will be opened publicly by the Board of Trustees of said Sanitary District at a meeting to be held on that day or at the first meeting thereafter, prior notice of said subsequent meeting to be mailed to all bidders.

The work for which said tenders are invited consists of building approximately 16,700 linear feet of concrete sewer of 5 feet 8¾ inches internal width and 6 feet 4 inches internal height in tunnel or open cut in earth and rock, approximately 2,000 linear feet of concrete sewer of 4 feet 6 inches internal width and 5 feet internal height in tunnel or open cut, and miscellaneous work collateral thereto. The work is located in the village of Summit and townships of Stickney and Lyons, County of Cook, State of Illinois.

The work includes excavation, lining and bracing, disposal of water, furnishing and placing concrete, reinforcement bars, iron castings and miscellaneous metals, backfilling, disposal of excess material and incidental work.

All bids must be made upon blank forms of proposal furnished by the Sanitary District, and shall be made in accordance with and to conform to the terms and conditions set forth in "Requirements for Bidding and Instructions to Bidders" attached thereto.

Specifications, form of proposal, one set of planographed plans and one set of blueprinted plans may be obtained upon deposit of One Hundred Dollars ($100.00) at the Office of said Sanitary District. Additional blue-printed plans may be obtained upon a deposit of Twenty-five Dollars ($25.00) per set. All sums deposited by the unsuccessful bidders will be refunded if said plans and specifications are returned in good condition, within thirty days following the opening of bids. All sums deposited by the successful bidder or bidders will not be refunded.

The Sanitary District has determined the general prevailing rate of per diem wages for work of a similar character at the site of the project under this contract, and also the general prevailing rate of per diem wages for legal holiday and overtime work, in the manner provided by "An Act regulating wages of laborers, mechanics and other workmen employed under contracts for public works," approved June 26, 1941. There shall be paid to each employee engaged in work on the project under this contract, in the trade or occupation listed in the contract, not less than the wage rate therein set forth, unless such rate is changed by the Sanitary District as a result of hearings or by the court on appeal, as provided in said Act. Such prevailing rates of per diem dages as determined by the Sanitary District are fully set forth in the "Requirements for Biddings and Instructions to Bidders" and herewith are incorporated by reference in this advertisement for bids the same as if such rates were completely set out herein in verbatim form.

Each proposal must be accompanied by cash, or by a cashier's or certified check on a responsible bank doing business in the City of Chicago, payable to the order of the Clerk of the Sanitary District of Chicago, in the amount of One Hundred Thousand Dollars ($100,000.00). Any proposal submitted without being accompanied by such cash or check will not be considered and will not be read after it is publicly opened.

The Board of Trustees of the Sanitary District of Chicago reserves the right to reject any or all proposals.

THE SANITARY DISTRICT OF CHICAGO
By James M. Whalen,
Chairman of Its Committee on Finance

Attest:
Jas. J. Sullivan
Clerk

Chicago, Illinois, October 3, 1946.

Bids: October 14 (267)

Construction & Sinking Fascine Mattresses

Sealed bids for furnishing all labor and material and performing all work for the construction and sinking of fascine mattresses 170' x 400' in the Atchafalaya River under Bridge 61.0.8 of the New Orleans, Texas & Mexico Railway at Krotz Springs, St. Landry Parish, Louisiana, will be received by C. S. Kirkpatrick, Chief Engineer of the New Orleans, Texas & Mexico Railway, 204 Union Station, Houston, Texas, until 10 A.M. Central Standard Time, October 15, 1946, and then publicly opened and read. The contemplated construction requires 68,000 square feet of fascine mattress, 1500 tons of stone, and six "Bignell" piles 15 inches square and 15 feet long. Prospective bidders must have license to contract in the State of Louisiana and show evidence of same before receiving information to bid. Further information upon application to C. S. Kirkpatrick, Chief Engineer. September 15, 16, 17 and 18. October 13 and 14.

(Continued on page 30)

OFFICIAL PROPOSALS

(Continued from page 29)

Bids: Oct. 16 (282)

State Highway Work

STATE DEPARTMENT OF PUBLIC WORKS

BUREAU OF CONTRACTS & ACCOUNTS

ALBANY, N. Y.

Sealed Proposals will be received by Henry A. Cohen, Director, Bureau of Contracts & Accounts, 14th Floor, The Governor Alfred E. Smith State Office Building, Albany, N. Y., until ten-thirty O'clock A.M. eastern standard time on WEDNESDAY, OCTOBER 16, 1946, for the construction and reconstruction of highway projects in the following counties:

County	Deposit for plans	Bid deposit	Type	Miles	Dept. estimate
CONSTRUCTION					
Queens	$20	$110,000	Reinf. Conc. Pav.; Misc. Work: Conc. Rigid Frame 1-span 58'; Conc. Rigid Frame 2-spans 44' & 39'; Conc. Rigid Frame 1 span 58'	0.56	$1,910,000
CONS. & RECONS.					
Warren & Essex	20	90,000	Twin Box 37' span; Asph. Conc. M.M. Opt.; Conc. 9" Thk. 24' and Var.	9.61	1,627 000
RECONSTRUCTION					
Clinton & Franklin	20	50,000	Reinf. Conc. Slab 23' span; Misc. Work; Conc. 8" Thk. 22' Wid.	11.73	910,000
Erie	5	8,000	Bit. Mac. M.M. Opt. Type 2; Misc. Work	1.72	144,000
Jefferson	5	22,000	Conc. 9" Thk. 24' - 46' Wid.; Conc. Wid.	2.03	405,000
Livingston	5	16,000	Conc. 8" Thk. 22' Wid.	2.65	290,000
Onondaga	5	11,000	Asphalt Conc. M.M. Opt.	1.13	205,000
Steuben	10	22,000	Conc. Box 22' span Asphalt Conc. M.M. Opt.	2.52	405,000
Suffolk	5	20,000	Conc. 6" & Var. Thk. 24' Wid.	5.00	366,000
Tompkins	5	28,000	Conc. Slab Ext. 23' span; Misc. Work; Conc. 9" Thk., 24' & 36' Wid.	4.70	501,000

Maps, plans, specifications, and estimates may be obtained at the Office of the Department of Public Works, Bureau of Contracts & Accounts, Albany, N. Y., and at the office of the District Engineers in whose district the roads are located. The names and addresses of the District Engineers will be furnished on request and may be seen at the office of the State Department of Public Works, State Office Building, Room 898, Worth & Center Streets, New York City.

The deposit for Plans and Proposal Forms for each contract containing 1 to 15 sheets is $5.00; 16 to 30 sheets, $10.00; over 30 sheets, $20.00. A refund will be made in full to bidders for return of one set, in good condition, within 30 days of award, or rejection of bids; refund for all other sets in good condition, similar period, will be 50% of deposit.

Special attention of bidders is called to "General Information for Bidders" in the proposal, specifications, and contract agreement, and to the special provisions applying to projects financed with federal funds.

Proposal for each contract must be submitted in a separate sealed envelope with the name and number of the contract plainly endorsed on the outside of the envelope. Each proposal must be accompanied by cash, draft or certified check payable to the order of "State of New York, Commissioner of Taxation & Finance" for the sum as specified in the advertisement and the proposal. The retention and disposal of the bidding check, the execution of the contract and bonds shall conform to the provisions of the Highway Law, as set forth in "Instructions to Bidders."

When optional types are permitted on contracts with federal funds, bidders must state in the space provided in the proposal the exact designation of the optional type upon which the proposal is predicated. Minimum Wage Rate per hour for above work shall be as follows:

County	Skilled Labor	Intermediate Grade Labor	Unskill Labor
Clinton	$0 75	$0.75	$0 75
Erie	1.12½	1.12½	1.12½
Essex	0.90	0.90	0.90
Franklin	0 75	0 75	0 75
Jefferson	0 80	0 80	0 80
Livingston	0 85	0.85	0.85
Onondaga	1 10	1.10	1 10
Queens	1 20	1 20	1 20
Steuben	0 95	0 95	0 95
Suffolk	1 00	1 00	1 00
Tompkins	0 90	0.90	0.90
Warren	0.90	0.90	0.90

Bids: October 30, 1946 (285)

Construction of Shafts

COMMONWEALTH OF MASSACHUSETTS
METROPOLITAN DISTRICT
WATER SUPPLY COMMISSION

Sealed proposals will be received at the office of the Metropolitan District Water Supply Commission, 20 Somerset Street, Boston, Mass., until 11:00 A.M., Eastern Standard Time, Wednesday, October 30, 1946, and then publicly opened for Contracts 117-A and 117-B for constructing shafts 6 and 7 of the City Tunnel section of Hultman Aqueduct in the cities of Newton and Boston respectively. Shaft 6 will be about 290 feet and Shaft 7 about 240 feet deep. Shaft 6 will be about 14 and Shaft 7 mainly about 20 feet in diameter after lining. The work consists of excavating and lining the shafts and excavating, but not lining, about 200 feet of tunnel on either side of each shaft, and also about 300 feet of spur tunnel northeast of Shaft 7. Three of the tunnel headings will be approximately 15½ feet in diameter and the other two approximately 13½ feet in diameter, all unlined. Bidders may bid on work at either one or both shafts. Each bidder shall deposit security in an amount not less than 5% of his bid. A bond in at least the full amount of the contract will be required of each successful bidder to secure the faithful performance of the contract, and for the payment of all persons performing labor or furnishing materials in connecton therewith. Special attention is called to the requirements as to conditions of employment to be observed and to the minimum rates of wages prescribed by the State Commissioner of Labor and Industries. A schedule of such rates may be obtained at the office of the Metropolitan District Water Supply Commission. The information for bidders, and the prescribed forms of proposal, contract, bid bond and performance bond, and plans and specifications may be examined at the above address, and copies thereof obtained from Karl R. Kennison, Chief Engineer of the Commission, upon the deposit of $10, to be refunded only to bidders or to others returning them within ten days after the opening of bids. The site of the work and the existing conditions at and near the shaft sites may be seen by applying at the office of the Division Engineer, 107 Charles Street, Auburndale, Mass. The Commonwealth reserves the right to waive any informality in, or to reject, any or all proposals. No bidder may withdraw his bid within thirty days after the actual date of the opening thereof.

WILLIAM T. MORRISSEY, Chairman
October 2, 1946.

Bids: October 23, 1946 (284)

Highway Work

Sealed proposals covering Beach Protection (Hydraulic Fill) From Fire Island State Park to Ocean Beach in the Town of Islip, Suffolk County, New York, will be received by Henry A. Cohen, Director, Bureau of Contracts and Accounts, Department of Public Works, The Governor Alfred E. Smith State Office Building, Albany, N. Y. on behalf of the Department of Public Works, until 10:30 o'clock A. M. (Eastern Standard Time) on Wednesday, October 23, 1946, when they will be publicly opened and read. The approximate amount of this project is $158,000.

Each proposal must be made upon the form and submitted in the envelope provided therefor and shall be accompanied by a certified check made payable to the State of New York, Commissioner of Taxation & Finance, of 5% of the amount of the bid as a guaranty that the bidder will enter into the contract if it be awarded to him. The title of the work must be written on the front of the envelope, sealed and delivered to Henry A. Cohen, Director, Bureau of Contracts & Accounts, The Governor Alfred E. Smith State Office Building, Albany, N. Y. The blank spaces in the proposal must be filled in, and no change shall be made in the phraseology of the proposal. Proposals that carry any omissions, errasures, alterations or additions may be rejected as informal. Successful bidder will be required to give a bond conditioned for the faithful performance of the contract and a separate bond for the payment of the laborers and material men, each bond in the sum of 100% of the amount of the contract or contracts in excess of $500. Corporations submitting proposals shall be authorized to do business in the State of New York. Drawings and specifications may be examined free of charge at the following offices:

Guy W. Pinck, Deputy Chief Engineer, The Governor Alfred E. Smith State Office Building, Albany, N. Y.
State Architect, State Office Building, 80 Center Street, New York City
J. J. Darcy, District Engineer, Montauk Highway at Little East Neck Road, Babylon, L. I., N. Y.

Drawings and specifications may be obtained from the Director, Bureau of Contracts and Accounts, The Governor Alfred E. Smith State Office Building, Albany, N. Y. or J. J. Darcy, District Engineer, Montauk Highway at Little East Neck Road, Babylon, L. I., N. Y. upon deposit of $5.00 for each set.

Checks for plans and specifications shall be made payable to the State of New York.

Proposal blanks and envelopes will be furnished without charge.

CHAS. H. SELLS, Superintendent
N. Y. State Department of Public Works.

LEGAL NOTICE

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of Engineering News Record published weekly at Albany, N. Y., for October 1, 1946.

State of New York }
County of New York } ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared J. A. Gerardi, who, having been duly sworn according to law, deposes and says that he is the Secretary of the McGraw-Hill Publishing Company, Inc., publishers of Engineering News-Record, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, to wit:

1. That the name and address of the publisher, editor, and business manager is: McGraw-Hill Publishing Company, Inc.; Editor, Waldo Bowman; Managing Editor, none; Business Manager, Albert E. Paxton, all of 330 West 42nd Street, New York 18, N. Y.

2. That the owner is: McGraw-Hill Publishing Company, Inc., 330 West 42nd Street, New York City. Stockholders holding 1% or more of stock: James H. McGraw; James H. McGraw, Jr.; James H. McGraw, Jr., Curtis W. McGraw and Edwin S. Wilsey, Trustees for; Harold W McGraw, James H. McGraw, Jr., Donald C. McGraw and Curtis W. McGraw, all of 330 West 42nd Street, New York City; Edwin S. Wilsey and Curtis W. McGraw, Trustees for James H. McGraw, 3rd, Madison, New Jersey; Curtis W. McGraw, Donald C. McGraw, both of 330 West 42nd Street, New York City; Mildred W. McGraw, Madison, New Jersey; Grace W. Mehren, 538 Arenas St., La Jolla, Calif.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is 39,216.

J. A. GERARDI, Secretary.
McGRAW-HILL PUBLISHING COMPANY, INC.

Sworn to and subscribed before me this 24th day of September, 1946.
[SEAL] ELVA G. MASLIN.
(My commission expires March 30, 1948.)

OFFICIAL PROPOSALS

Bids: November 13, 1946. (286)

Concrete and Steel Substructure

Sealed proposals for the construction of the following project will be received by the Louisiana Department of Highways, Room 310, Highway Office Building, Baton Rouge, Louisiana, until 10:45 A. M. on Wednesday, November 13, 1946. After 10:45 A. M., proposals will be received in the Chamber of the House of Representatives in the State Capitol until 11:00 A. M. No proposals will be received after 11:00 A. M.. At 11:00 A. M. of the same day and date, they will be publicly opened and publicly read in the Chamber of the House of Representatives in the State Capitol.

STATE PROJECT NO. 33-03-07, WAR EMERGENCY RELIEF PROJECT NO. WER 1 (1); RED RIVER BRIDGE (MONCLA) SUBSTRUCTURE located in AVOYELLES PARISH, STATE ROUTE NO. 57. Length: 0.365 mile. Type: CONCRETE AND STEEL SUBSTRUCTURE.

The rules and regulations of the Louisiana Department of Occupational Standards for General Contractors will apply.

Information relative to licensing may be obtained from Louisiana Department of Occupational Standards, Contractors' Division, Baton Rouge, Louisiana.

Full information and proposal forms are available at the offices of the Department of Highways at Baton Rouge. Plans and specifications may be inspected at said office or plans will be furnished upon payment of $6.00 (not to be refunded).

Bids must be submitted on proposal forms provided by the Department.

The Department of Highways reserves the right to reject any or all proposals.

DEPARTMENT OF HIGHWAYS
D. Y. SMITH, DIRECTOR

U. S. Government

COMMISSIONERS, D. C., Washington, September 19, 1946. Sealed proposals will be received at Room 509, District Building, until 2:00 P.M., October 31, 1946, and then publicly opened, for furnishing materials and performing the work for constructing the Superstructure for the South Capitol Street Bridge, across the Anacostia River, D. C., which consists of a steel girder superstructure with a swing span and the necessary mechanical and electrical machinery. The principal quantities include approximately 9,875,000 pounds of steel and iron products and 4,000 cubic yards of concrete. All prospective bidders are hereby notified that any bid submitted in response to this advertisement must be accompanied by a statement of facts in detail of the business and technical organization of the bidder available for the contemplated work, including his financial resources. The Commissioners expressly reserve the right to reject any bid in which the facts as to the business and technical organization, financial resources or experience of the bidder justify such rejection. Requests to Chief Clerk, Engineer Department, Room 427, District Building, 14th Street and Pennsylvania Avenue, N.W., Washington 4, D. C., for proposal form, specifications and drawings, should be accompanied by a certified check in the sum of $25.00, to insure their return in good condition. Not more than three (3) sets of drawings and specifications will be furnished to any one general contractor. EW.

NEW

"OFFICIAL PROPOSAL"

Advertisements

can be received up to 3:00 P. M. Monday to appear in Thursday's issue.

Classified Advertising Division

ENGINEERING NEWS-RECORD

330 W. 42nd St., New York 18, N. Y.

EMPLOYMENT

POSITIONS VACANT AND WANTED

(See following page)

HELP WANTED

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AND

ESTIMATORS

Experienced Men Only

EXCELLENT OPPORTUNITY

This Is Not a Temporary Position

BIRMINGHAM TANK COMPANY

Attention—E. Payne

Birmingham, Alabama

WANTED

CONSTRUCTION ENGINEERS

Old, established consulting engineering and construction organization in New York City has good opportunities for construction engineers experienced in public utility and industrial construction work. Must be thoroughly qualified to direct field layout work, inspection work, preparation of construction reports and specifications for subcontracts, and to interpret plans and specifications. Reply must give full particulars as to age, education, experience record, availability, salary desired, etc.

P-966, Engineering News-Record
330 West 42nd St., New York 18, N. Y.

WATER-WORKS ENGINEER

With consulting experience, wanted for sales work by leading equipment manufacturer. Job involves work with waterworks and sewage consulting engineers; engineers in municipal departments, and pipe companies—beginning with work preliminary to specifications and carrying through to successful bidding of jobs. Considerable traveling. Steady employment at good fixed salary. Excellent opportunity for man with right technical background and desire for active, interesting engineering sales work.

P-976, Engineering News-Record
330 West 42nd St., New York 18, N. Y.

WANTED

Construction Superintendents

Old, established consulting engineering and construction organization in New York City has good opportunities for construction superintendents experienced in public utility and industrial construction work. Must be thoroughly qualified to take complete responsibility for and direct both force account and subcontract work. Reply must give full particulars as to age, education, experience record, availability, salary desired, etc.

P-967, Engineering News-Record
330 West 42nd St., New York 18, N. Y.

POSITIONS VACANT

WANTED—ENGINEERS experienced in the design of sewers, sewage treatment plants and water treatment plants. State qualifications, experience and salary requirements. P-787, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SALES ENGINEER: living in Rochester-Syracuse-Utica area with highway construction experience, preferably bituminous. Graduate Civil Engineering preferred but not essential. Between 30 and 40 years. Must have auto. Give experience last 10 years, salary expected. P-921, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WANTED: ENGINEERING Draftsman experienced in refinery or heavy chemical plant equipment layout and design. Work consists of expansion of plant facilities, layout and design of conveyors, vessels, power house and general piping, tanks, structural steel and similar installations. Contact the Mathieson Alkali Works, (Inc.) P.O. Box 896, Lake Charles, Louisiana, giving full particulars, salary expected, etc.

ENGINEERS, CIVIL, Sanitary, Structural. Consulting firm requires men with experience in preparation of plans for sanitary engineering projects or in work of similar nature. Permanant connection for men of acceptable qualifications. Please furnish complete record of experience, references and statement of approximate salary requirements. P-922, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

STRUCTURAL DESIGNERS and detailers for a depressed urban type expressway and for a major program of parkway and highway bridges and railroad and highway grade separations, in the Detroit area. Structures include rigid frame, continuous and simple spans in steel and reinforced concrete. Induction rates are $2,580, $3,180, $3,660 and $4,140 in the four classifications open. Rates are based on 40-hour week (premium pay for overtime). Comparable automatic annual step raises for each classification. In reply give age, education, experience, reference, snapshot photograph, sample of drafting and other data available. P-923, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

STRUCTURAL CHECKERS: detailers steady employment. Ralph Rinker, 572 Bellevue Ave., Trenton, New Jersey.

WANTED: EXPERIENCED structural steel and miscellaneous iron detailer and checker. Permanent employment in small fabricating plant in Detroit, Michigan. State complete record of experience, education and salary requirements. P-942, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WANTED

CONSTRUCTION SUPERINTENDENTS

Midwest firm of Contractors and Engineers has openings for two construction superintendents on industrial and commercial building.

These jobs are permanent and have good salaries and require ability to take complete charge. Interviews will be arranged.

Give details of education, experience, age, date of availability.

P-969, Engineering News-Record
520 North Michigan Ave., Chicago 11, Ill.

(Continued on page 32)

EMPLOYMENT OPPORTUNITIES

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Positions Wanted (full or part time individual salaried employment only), ½ the above rates, payable in advance.

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Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals.)

Copy for new advertisements received until 10 A. M. Friday for following Thursday's issue

POSITIONS VACANT

(Continued from page 31)

STRUCTURAL DETAILER, experienced in welded fabrication design for jobbing shop, salary open. P-984, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ENGINEER-ESTIMATOR wanted, Plumbing, Heating, Air Conditioning. Firm located in Penna. College background desirable but not absolutely necessary. Permanent position. Salary $5000.00 to start. State age, education, experience in first letter. Send photo. P-970, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SANITARY ENGINEER: Experienced in design sewer systems and sewage treatment plants, capable supervising designing draftsmen in preparation plans, specifications, estimates of cost, in office of Consulting Engineers—Up-State New York. Firm now has commitments for at least eighteen months work with excellent future prospects. State age, education, experience, references, and salary desired. P-971, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ESTIMATOR—Engineer to take complete charge of Structural Steel Erection & Reinforcing Setting Department. Field experience necessary as well as ability to make contacts with General Contractors. Located in New England, growing organization. Good opportunity for right man. Salary commensurate with ability to produce. P-985, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS WANTED

GRADUATE ENGINEER, 28, 6 years experience in construction, surveying, design, drainage work, earth moving, aerial photogrammetry, etc., seeks in or near Chicago. PW-972, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

ENGINEERING EDUCATION, Experienced for 20 years as a Construction Engineer, foreman and Supt. on Bridges, roads, dams and buildings, foreign service preferred. PW-973, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

POSITIONS WANTED

ASSISTANT SUPERINTENDENT or Construction Engineer, single, 4 years college civil engineering, 12 years experience highways, dams, sewer and water lines and industrial plant construction. Location immaterial but prefer midwest. Available October 15th. PW-979, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

DREDGING SUPERINTENDENT. Ten years experience in estimating, promotion and execution of hydraulic dredging contracts involving parkway, airport, dock and earth dam fills. Thoroughly familiar with cost of operation of large hydraulic plants and with soils investigation with reation to pumping rates. Graduate Civil Engineer. PW-980, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

A. S. C. E. Registered. 25 years experience on buildings and diversified construction, estimating, specification writing, purchasing, job lay out and supervision. Desires congenial connection where loyalty and experience will be appreciated. Free to travel. Location East. PW-986, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ENGINEER, Licensed New York. Nine years experienie sewerage, water, treatment plants, factory site development. Can take charge surveys, design or supervise construction. PW-974, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER: graduate, 27 years experience; design, construction, industrial, water supply, hydro-electric. PW-977, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

MECHANICAL ENGINEER: age 41, 5 years chemical plant layout and design, 10 years diversified engineering, 3 years maintenance and machine shop work, experience in supervisory men. PW-947, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS WANTED

PIPING DESIGN Draftsman or Supervisor with 26 years progresive experience on oil refineries, chemical, industrial and power plants. Minimum salary $6500. PW-978, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SUPERINTENDENT, General construction, housing projects, industrial and commercial buildings, sewage treatment plants, hospitals, schools etc.; age 44, over 20 years experience. Desires similar responsible connection with future possibilities. PW-976, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION EXECUTIVE: Engineer. Many years diversified experience in construction of all types. Take full responsibility of organization and operation of many projects in his stride. Knows how to secure and expedite materials and get things done. Salary requirements $10,000.00 plus percentage of profits. Desires full responsibility and security. East Coast preferably. PW-926, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL SANITARY Engineer, age 33, graduated 1935, B.S. Civil Engineering from Penn State, advanced sanitary engineering in Harvard University. Two years officer in Sanitary Corps. Experienced valuation engineering, estimating costs and quantities, design of sanitary installations, inspection of materials and construction, and operation sanitary facilities. Principle field—valuation engineering. PW-963, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

STRUCTURAL STEEL draftsman, graduate, 12 years experience shop drawings, also some designing, wants position Southern states. Draftsman, 111 South Mendenhall, Greensboro, N. C.

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